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Date of Deposit: August 27, 2004

5538-1010seqlisting.txt
SEQUENCE LISTING

<110> Eric Potter Clarkson

<120> Methods and compositions for desensitisation

<130> 5538/1010

<140> US 09/610,134

<141> 2000-07-05

<150> PCT/GB99/00080

<151> 1999-01-11

<150> GB/9800445.0

<151> 1998-01-09

<150> GB/9820474.6

<151> 1998-09-21

<160> 124

<170> PatentIn version 3.0

<210> 1

<211> 17

<212> PRT

<213> Felis catus

<400> 1

Leu Phe Leu Thr Gly Thr Pro Asp Glu Tyr Val Glu Gln Val Ala Gln
1 5 10 15

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Tyr

<210> 2

<211> 16

<212> PRT

<213> Felis catus

<400> 2

Glu Gln Val Ala Gln Tyr Lys Ala Leu Pro Val Val Leu Glu Asn Ala
1 5 10 15

<210> 3

<211> 17

<212> PRT

<213> Felis catus

<400> 3

Lys Ala Leu Pro Val Val Leu Glu Asn Ala Arg Ile Leu Lys Asn Cys
1 5 10 15

Val

<210> 4

<211> 70

<212> PRT

<213> Felis catus

<400> 4

Glu Ile Cys Pro Ala Val Lys Asp Arg Val Asp Leu Phe Leu Thr Gly
1 5 10 15

Thr Pro Asp Glu Tyr Val Glu Gln Val Ala Gln Tyr Lys Ala Leu Pro
20 25 30

Val Val Leu Glu Asn Ala Arg Ile Leu Lys Asn Cys Val Asp Ala Lys
35 40 45

Met Thr Glu Glu Asp Lys Glu Asn Ala Leu Ser Leu Leu Asp Lys Ile
50 55 60

Tyr Thr Ser Pro Leu Cys
65 70

5538-1010seqlisting.txt

<210> 5

<211> 92

<212> PRT

<213> Felis catus

<400> 5

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Val Lys Met Ala Glu Thr Cys Pro Ile Phe Tyr Asp Val Phe Phe Ala
1      5      10      15
Val Ala Asn Gly Asn Glu Leu Leu Leu Lys Leu Ser Leu Thr Lys Val
      20      25      30
Asn Ala Thr Glu Pro Glu Arg Thr Ala Met Lys Lys Ile Gln Asp Cys
      35      40      45
Tyr Val Glu Asn Gly Leu Ile Ser Arg Val Leu Asp Gly Leu Val Met
      50      55      60
Thr Thr Ile Ser Ser Ser Lys Asp Cys Met Gly Glu Ala Val Gln Asn
65      70      75      80
Thr Val Glu Asp Leu Lys Leu Asn Thr Leu Gly Arg
      85      90

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<210> 6

<211> 17

<212> PRT

<213> Felis catus

<400> 6

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Glu Ile Cys Pro Ala Val Lys Arg Asp Val Asp Leu Phe Leu Thr Gly
1      5      10      15
Thr

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<210> 7

<211> 17

<212> PRT

<213> Felis catus

<400> 7

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Arg Ile Leu Lys Asn Cys Val Asp Ala Lys Met Thr Glu Glu Asp Lys
1      5      10      15

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Glu

<210> 8

<211> 16

<212> PRT

<213> Felis catus

<400> 8

Lys	Met	Thr	Glu	Glu	Asp	Lys	Glu	Asn	Ala	Leu	Ser	Leu	Leu	Asp	Lys
1				5					10					15	

<210> 9

<211> 16

<212> PRT

<213> Felis catus

<400> 9

Lys	Glu	Asn	Ala	Leu	Ser	Val	Leu	Asp	Lys	Ile	Tyr	Thr	Ser	Pro	Leu
1				5					10					15	

<210> 10

<211> 16

<212> PRT

<213> Felis catus

<400> 10

Val	Lys	Met	Ala	Glu	Thr	Cys	Pro	Ile	Phe	Tyr	Asp	Val	Phe	Phe	Ala
1				5					10					15	

<210> 11

<211> 17

<212> PRT

<213> Felis catus

<400> 11

Cys	Pro	Ile	Phe	Tyr	Asp	Val	Phe	Phe	Ala	Val	Ala	Asn	Gly	Asn	Glu
1				5					10					15	

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Leu

<210> 12

<211> 16

<212> PRT

<213> Felis catus

<400> 12

Gly Asn Glu Leu Leu Leu Lys Leu Ser Leu Thr Lys Val Asn Ala Thr
1 5 10 15

<210> 13

<211> 16

<212> PRT

<213> Felis catus

<400> 13

Leu Thr Lys Val Asn Ala Thr Glu Pro Glu Arg Thr Ala Met Lys Lys
1 5 10 15

<210> 14

<211> 16

<212> PRT

<213> Felis catus

<400> 14

Thr Ala Met Lys Lys Ile Gln Asp Cys Tyr Val Glu Asn Gly Leu Ile
1 5 10 15

<210> 15

<211> 16

<212> PRT

<213> Felis catus

<400> 15

Cys Tyr Val Glu Asn Gly Leu Ile Ser Arg Val Leu Asp Gly Leu Val
1 5 10 15

5538-1010seqlisting.txt

<210> 16

<211> 16

<212> PRT

<213> Felis catus

<400> 16

Ser Arg Val Leu Asp Gly Leu Val Met Thr Thr Ile Ser Ser Ser Lys
1 5 10 15

<210> 17

<211> 16

<212> PRT

<213> Felis catus

<400> 17

Ile Ser Ser Ser Lys Asp Cys Met Gly Glu Ala Val Gln Asn Thr Val
1 5 10 15

<210> 18

<211> 16

<212> PRT

<213> Felis catus

<400> 18

Ala Val Gln Asn Thr Val Glu Asp Leu Lys Leu Asn Thr Leu Gly Arg
1 5 10 15

<210> 19

<211> 320

<212> PRT

<213> Dermatophagooides pteronyssinus

<400> 19

Met Lys Ile Val Leu Ala Ile Ala Ser Leu Leu Ala Leu Ser Ala Val
1 5 10 15

Tyr Ala Arg Pro Ser Ser Ile Lys Thr Phe Glu Glu Tyr Lys Lys Ala
20 25 30

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Phe Asn Lys Ser Tyr Ala Thr Phe Glu Asp Glu Glu Ala Ala Arg Lys
35 40 45
Asn Phe Leu Glu Ser Val Lys Tyr Val Gln Ser Asn Gly Gly Ala Ile
50 55 60
Asn His Leu Ser Asp Leu Ser Leu Asp Glu Phe Lys Asn Arg Phe Leu
65 70 75 80
Met Ser Ala Glu Ala Phe Glu His Leu Lys Thr Gln Phe Asp Leu Asn
85 90 95
Ala Glu Thr Asn Ala Cys Ser Ile Asn Gly Asn Ala Pro Ala Glu Ile
100 105 110
Asp Leu Arg Gln Met Arg Thr Val Thr Pro Ile Arg Met Gln Gly Gly
115 120 125
Cys Gly Ser Cys Trp Ala Phe Ser Gly Val Ala Ala Thr Glu Ser Ala
130 135 140
Tyr Leu Ala Tyr Arg Asn Gln Ser Leu Asp Leu Ala Glu Gln Glu Leu
145 150 155 160
Val Asp Cys Ala Ser Gln His Gly Cys His Gly Asp Thr Ile Pro Arg
165 170 175
Gly Ile Glu Tyr Ile Gln His Asn Gly Val Val Gln Glu Ser Tyr Tyr
180 185 190
Arg Tyr Val Ala Arg Glu Gln Ser Cys Arg Arg Pro Asn Ala Gln Arg
195 200 205
Phe Gly Ile Ser Asn Tyr Cys Gln Ile Tyr Pro Pro Asn Val Asn Lys
210 215 220
Ile Arg Glu Ala Leu Ala Gln Thr His Ser Ala Ile Ala Val Ile Ile
225 230 235 240
Gly Ile Lys Asp Leu Asp Ala Phe Arg His Tyr Asp Gly Arg Thr Ile
245 250 255
Ile Gln Arg Asp Asn Gly Tyr Gln Pro Asn Tyr His Ala Val Asn Ile
260 265 270
Val Gly Tyr Ser Asn Ala Gln Gly Val Asp Tyr Trp Ile Val Arg Asn
275 280 285
Ser Trp Asp Thr Asn Trp Gly Asp Asn Gly Tyr Gly Tyr Phe Ala Ala
290 295 300
Asn Ile Asp Leu Met Met Ile Glu Glu Tyr Pro Tyr Val Val Ile Leu
305 310 315 320

<210> 20

<211> 146

<212> PRT

<213> Dermatophagoides pteronyssinus

5538-1010seqlisting.txt

<400> 20

Met Met Tyr Lys Ile Leu Cys Leu Ser Leu Leu Val Ala Ala Val Ala
1 5 10 15
Arg Asp Gln Val Asp Val Lys Asp Cys Ala Asn His Glu Ile Lys Lys
20 25 30
Val Leu Val Pro Gly Cys His Gly Ser Glu Pro Cys Ile Ile His Arg
35 40 45
Gly Lys Pro Phe Gln Leu Glu Ala Val Phe Glu Ala Asn Gln Asn Thr
50 55 60
Lys Thr Ala Lys Ile Glu Ile Lys Ala Ser Ile Asp Gly Leu Glu Val
65 70 75 80
Asp Val Pro Gly Ile Asp Pro Asn Ala Cys His Tyr Met Lys Cys Pro
85 90 95
Leu Val Lys Gly Gln Gln Tyr Asp Ile Lys Tyr Thr Trp Asn Val Pro
100 105 110
Lys Ile Ala Pro Lys Ser Glu Asn Val Val Val Thr Val Lys Val Met
115 120 125
Gly Asp Asp Gly Val Leu Ala Cys Ala Ile Ala Thr His Ala Lys Ile
130 135 140
Arg Asp
145

<210> 21

<211> 261

<212> PRT

<213> Dermatophagoides pteronyssinus

<400> 21

Met Ile Ile Tyr Asn Ile Leu Ile Val Leu Leu Leu Ala Ile Asn Thr
1 5 10 15
Leu Ala Asn Pro Ile Leu Pro Ala Ser Pro Asn Ala Thr Ile Val Gly
20 25 30
Gly Glu Lys Ala Leu Ala Gly Glu Cys Pro Tyr Gln Ile Ser Leu Gln
35 40 45
Ser Ser Ser His Phe Cys Gly Gly Thr Ile Leu Asp Glu Tyr Trp Ile
50 55 60
Leu Thr Ala Ala His Cys Val Ala Gly Gln Thr Ala Ser Lys Leu Ser
65 70 75 80
Ile Arg Tyr Asn Ser Leu Lys His Ser Leu Gly Gly Glu Lys Ile Ser
85 90 95

5538-1010seqlisting.txt

Val Ala Lys Ile Phe Ala His Glu Lys Tyr Asp Ser Tyr Gln Ile Asp
100 105 110
Asn Asp Ile Ala Leu Ile Lys Leu Lys Ser Pro Met Lys Leu Asn Gln
115 120 125
Lys Asn Ala Lys Ala Val Gly Leu Pro Ala Lys Gly Ser Asp Val Lys
130 135 140
Val Gly Asp Gln Val Arg Val Ser Gly Trp Gly Tyr Leu Glu Glu Gly
145 150 155 160
Ser Tyr Ser Leu Pro Ser Glu Leu Arg Arg Val Asp Ile Ala Val Val
165 170 175
Ser Arg Lys Glu Cys Asn Glu Leu Tyr Ser Lys Ala Asn Ala Glu Val
180 185 190
Thr Asp Asn Met Ile Cys Gly Gly Asp Val Ala Asn Gly Gly Lys Asp
195 200 205
Ser Cys Gln Gly Asp Ser Gly Gly Pro Val Val Asp Val Lys Asn Asn
210 215 220
Gln Val Val Gly Ile Val Ser Trp Gly Tyr Gly Cys Ala Arg Lys Gly
225 230 235 240
Tyr Pro Gly Val Tyr Thr Arg Val Gly Asn Phe Ile Asp Trp Ile Glu
245 250 255
Ser Lys Arg Ser Gln
260

<210> 22

<211> 19

<212> PRT

<213> Dermatophagoides pteronyssinus

<220>

<221> misc_feature

<223> X is an unknown amino acid

<400> 22

Lys Tyr Xaa Asn Pro His Phe Ile Gly Xaa Arg Ser Val Ile Thr Xaa
1 5 10 15
Leu Met Glu

<210> 23

<211> 132

<212> PRT

<213> Dermatophagoides pteronyssinus

<400> 23

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Met Lys Phe Ile Ile Ala Phe Phe Val Ala Thr Leu Ala Val Met Thr
1      5      10
Val Ser Gly Glu Asp Lys Lys His Asp Tyr Gln Asn Glu Phe Asp Phe
20      25      30
Leu Leu Met Glu Arg Ile His Glu Gln Ile Lys Lys Gly Glu Leu Ala
35      40      45
Leu Phe Tyr Leu Gln Glu Gln Ile Asn His Phe Glu Glu Lys Pro Thr
50      55      60
Lys Glu Met Lys Asp Lys Ile Val Ala Glu Met Asp Thr Ile Ile Ala
65      70      75      80
Met Ile Asp Gly Val Arg Gly Val Leu Asp Arg Leu Met Gln Arg Lys
85      90      95
Asp Leu Asp Ile Phe Glu Gln Tyr Asn Leu Glu Met Ala Lys Lys Ser
100      105      110
Gly Asp Ile Leu Glu Arg Asp Leu Lys Lys Glu Glu Ala Arg Val Lys
115      120      125
Lys Ile Glu Val
130

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<210> 24

<211> 20

<212> PRT

<213> Dermatophagoides pteronyssinus

<220>

<221> misc_feature

<223> X ia unknown amino acid

<400> 24

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Ala Ile Gly Xaa Gln Pro Ala Ala Glu Ala Glu Ala Pro Phe Gln Ile
1      5      10      15
Ser Leu Met Lys
20

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<210> 25

<211> 215

<212> PRT

<213> Dermatophagoides pteronyssinus

<400> 25

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Met Met Lys Leu Leu Leu Ile Ala Ala Ala Phe Val Ala Val Ser
1      5      10
Ala Asp Pro Ile His Tyr Asp Lys Ile Thr Glu Glu Ile Asn Lys Ala
20      25      30
Val Asp Glu Ala Val Ala Ala Ile Glu Lys Ser Glu Thr Phe Asp Pro
35      40      45
Met Lys Val Pro Asp His Ser Asp Lys Phe Glu Arg His Ile Gly Ile
50      55      60
Ile Asp Leu Lys Gly Glu Leu Asp Met Arg Asn Ile Gln Val Arg Gly
65      70      75      80
Leu Lys Gln Met Lys Arg Val Gly Asp Ala Asn Val Lys Ser Glu Asp
85      90      95
Gly Val Val Lys Ala His Leu Leu Val Gly Val His Asp Asp Val Val
100     105     110
Ser Met Glu Tyr Asp Leu Ala Tyr Lys Leu Gly Asp Leu His Pro Asn
115     120     125
Thr His Val Ile Ser Asp Ile Gln Asp Phe Val Val Glu Leu Ser Leu
130     135     140
Glu Val Ser Glu Glu Gly Asn Met Thr Leu Thr Ser Phe Glu Val Arg
145     150     155     160
Gln Phe Ala Asn Val Val Asn His Ile Gly Gly Leu Ser Ile Leu Asp
165     170     175
Pro Ile Phe Ala Val Leu Ser Asp Val Leu Thr Ala Ile Phe Gln Asp
180     185     190
Thr Val Arg Ala Glu Met Thr Lys Val Leu Ala Pro Ala Phe Lys Lys
195     200     205
Glu Leu Glu Arg Asn Asn Gln
210     215

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<210> 26

<211> 18

<212> PRT

<213> Dermatophagoides pteronyssinus

<400> 26

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Ile Val Gly Gly Ser Asn Ala Ser Pro Gly Asp Ala Val Tyr Gln Ile
1 5 10 15

Ala Leu

<210> 27

<211> 319

<212> PRT

<213> Dermatophagoides farinae

<400> 27

Met Lys Phe Val Leu Ala Ile Ala Ser Leu Leu Val Leu Thr Val Tyr
1 5 10 15

Ala Arg Pro Ala Ser Ile Lys Thr Phe Glu Phe Lys Lys Ala Phe Asn
20 25 30

Lys Asn Tyr Ala Thr Val Glu Glu Glu Glu Val Ala Arg Lys Asn Phe
35 40 45

Leu Glu Ser Leu Lys Tyr Val Glu Ala Asn Lys Gly Ala Ile Asn His
50 55 60

Leu Ser Asp Leu Ser Leu Asp Glu Phe Lys Asn Arg Tyr Leu Met Ser
65 70 75 80

Ala Glu Ala Phe Glu Gln Leu Lys Thr Gln Phe Asp Leu Asn Ala Glu
85 90 95

Thr Ser Ala Cys Arg Ile Asn Ser Val Asn Val Pro Ser Glu Leu Asp
100 105 110

Leu Arg Ser Leu Arg Thr Val Thr Pro Ile Arg Met Gln Gly Gly Cys
115 120 125

Gly Ser Cys Trp Ala Phe Ser Gly Val Ala Ala Thr Glu Ser Ala Tyr
130 135 140

Leu Ala Tyr Arg Asn Thr Ser Leu Asp Leu Ser Glu Gln Glu Leu Val
145 150 155 160

Asp Cys Ala Ser Gln His Gly Cys His Gly Asp Thr Ile Pro Arg Gly
165 170 175

Ile Glu Tyr Ile Gln Gln Asn Gly Val Val Glu Glu Arg Ser Tyr Pro
180 185 190

Tyr Val Ala Arg Glu Gln Arg Cys Arg Arg Pro Asn Ser Gln His Tyr
195 200 205

Gly Ile Ser Asn Tyr Cys Gln Ile Tyr Pro Pro Asp Val Lys Gln Ile
210 215 220

Arg Glu Ala Leu Thr Gln Thr His Thr Ala Ile Ala Val Ile Ile Gly
225 230 235 240

5538-1010seqlisting.txt

Ile Lys Asp Leu Arg Ala Phe Gln His Tyr Asp Gly Arg Thr Ile Ile
245 250 255
Gln His Asp Asn Gly Tyr Gln Pro Asn Tyr His Ala Val Asn Ile Val
260 265 270
Gly Tyr Gly Ser Thr Gln Gly Asp Asp Tyr Trp Ile Val Arg Asn Ser
275 280 285
Trp Asp Thr Thr Trp Gly Asp Ser Gly Tyr Gly Tyr Phe Gln Ala Gly
290 295 300
Asn Asn Leu Met Met Ile Glu Gln Tyr Pro Tyr Val Val Ile Met
305 310 315

<210> 28

<211> 146

<212> PRT

<213> Dermatophagoides farinae

<400> 28

Met Ile Ser Lys Ile Leu Cys Leu Ser Leu Leu Val Ala Ala Val Val
1 5 10 15
Ala Asp Gln Val Asp Val Lys Asp Cys Ala Asn Asn Glu Ile Lys Lys
20 25 30
Val Met Val Asp Gly Cys His Gly Ser Asp Pro Cys Ile Ile His Arg
35 40 45
Gly Lys Pro Phe Thr Leu Glu Ala Leu Phe Asp Ala Asn Gln Asn Thr
50 55 60
Lys Thr Ala Lys Ile Glu Ile Lys Ala Ser Leu Asp Gly Leu Glu Ile
65 70 75 80
Asp Val Pro Gly Ile Asp Thr Asn Ala Cys His Phe Met Lys Cys Pro
85 90 95
Leu Val Lys Gly Gln Gln Tyr Asp Ile Lys Tyr Thr Trp Asn Val Pro
100 105 110
Lys Ile Ala Pro Lys Ser Glu Asn Val Val Val Thr Val Lys Leu Ile
115 120 125
Gly Asp Asn Gly Val Leu Ala Cys Ala Ile Ala Thr His Gly Lys Ile
130 135 140

Arg Asp
145

<210> 29

<211> 259

<212> PRT

<213> Dermatophagoides farinae

<400> 29

Met Met Ile Leu Thr Ile Val Val Leu Leu Ala Ala Asn Ile Leu Ala
 1 5 10 15
 Thr Pro Ile Leu Pro Ser Ser Pro Asn Ala Thr Ile Val Gly Gly Val
 20 25 30
 Lys Ala Gln Ala Gly Asp Cys Pro Tyr Gln Ile Ser Leu Gln Ser Ser
 35 40 45
 Ser His Phe Cys Gly Gly Ser Ile Leu Asp Glu Tyr Trp Ile Leu Thr
 50 55 60
 Ala Ala His Cys Val Asn Gly Gln Ser Ala Lys Lys Leu Ser Ile Arg
 65 70 75 80
 Tyr Asn Thr Leu Lys His Ala Ser Gly Gly Glu Lys Ile Gln Val Ala
 85 90 95
 Glu Ile Tyr Gln His Glu Asn Tyr Asp Ser Met Thr Ile Asp Asn Asp
 100 105 110
 Val Ala Leu Ile Lys Leu Lys Thr Pro Met Thr Leu Asp Gln Thr Asn
 115 120 125
 Ala Lys Pro Val Pro Leu Pro Ala Gln Gly Ser Asp Val Lys Val Gly
 130 135 140
 Asp Lys Ile Arg Val Ser Gly Trp Gly Tyr Leu Gln Glu Gly Ser Tyr
 145 150 155 160
 Ser Leu Pro Ser Glu Leu Gln Arg Val Asp Ile Asp Val Val Ser Arg
 165 170 175
 Glu Gln Cys Asp Gln Leu Tyr Ser Lys Ala Gly Ala Asp Val Ser Glu
 180 185 190
 Asn Met Ile Cys Gly Gly Asp Val Ala Asn Gly Gly Val Asp Ser Cys
 195 200 205
 Gln Gly Asp Ser Gly Gly Pro Val Val Asp Val Ala Thr Lys Gln Ile
 210 215 220
 Val Gly Ile Val Ser Trp Gly Tyr Gly Cys Ala Arg Lys Gly Tyr Pro
 225 230 235 240
 Gly Val Tyr Thr Arg Val Gly Asn Phe Val Asp Trp Ile Glu Ser Lys
 245 250 255
 Arg Ser Gln

<210> 30

<211> 20

<212> PRT

<213> Dermatophagoides farinae

<400> 30

Ala Val Gly Gly Gln Asp Ala Asp Leu Ala Glu Ala Pro Phe Gln Ile
1 5 10 15
Ser Leu Leu Lys
20

<210> 31

<211> 213

<212> PRT

<213> Dermatophagoides farinae

<400> 31

Met Met Lys Phe Leu Leu Ile Ala Ala Val Ala Phe Val Ala Val Ser
1 5 10 15
Ala Asp Pro Ile His Tyr Asp Lys Ile Thr Glu Glu Ile Asn Lys Ala
20 25 30
Ile Asp Asp Ala Ile Ala Ala Ile Glu Gln Ser Glu Thr Ile Asp Pro
35 40 45
Met Lys Val Pro Asp His Ala Asp Lys Phe Glu Arg His Val Gly Ile
50 55 60
Val Asp Phe Lys Gly Glu Leu Ala Met Arg Asn Ile Glu Ala Arg Gly
65 70 75 80
Leu Lys Gln Met Lys Arg Gln Gly Asp Ala Asn Val Lys Gly Glu Glu
85 90 95
Gly Ile Val Lys Ala His Leu Leu Ile Gly Val His Asp Asp Ile Val
100 105 110
Ser Met Glu Tyr Asp Leu Ala Tyr Lys Leu Gly Asp Leu His Pro Thr
115 120 125
Thr His Val Ile Ser Asp Ile Gln Asp Phe Val Val Ala Leu Ser Leu
130 135 140
Glu Ile Ser Asp Glu Gly Asn Ile Thr Met Thr Ser Phe Glu Val Arg
145 150 155 160
Gln Phe Ala Asn Val Val Asn His Ile Gly Gly Leu Ser Ile Leu Asp
165 170 175
Pro Ile Phe Gly Val Leu Ser Asp Val Leu Thr Ala Ile Phe Gln Asp
180 185 190
Thr Val Arg Lys Glu Met Thr Lys Val Leu Ala Pro Ala Phe Lys Arg
195 200 205

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Glu Leu Glu Lys Asn
210

<210> 32

<211> 109

<212> PRT

<213> Felis catus

<400> 32

Met Arg Gly Ala Leu Leu Val Leu Ala Leu Leu Val Thr Gln Ala Leu
1 5 10 15
Gly Val Lys Met Ala Glu Thr Cys Pro Ile Phe Tyr Asp Val Phe Phe
20 25 30
Ala Val Ala Asn Gly Asn Glu Leu Leu Leu Asp Leu Ser Leu Thr Lys
35 40 45
Val Asn Ala Thr Glu Pro Glu Arg Thr Ala Met Lys Lys Ile Gln Asp
50 55 60
Cys Tyr Val Glu Asn Gly Leu Ile Ser Arg Val Leu Asp Gly Leu Val
65 70 75 80
Met Thr Thr Ile Ser Ser Ser Lys Asp Cys Met Gly Glu Ala Val Gln
85 90 95
Asn Thr Val Glu Asp Leu Lys Leu Asn Thr Leu Gly Arg
100 105

<210> 33

<211> 88

<212> PRT

<213> Felis catus

<400> 33

Met Leu Asp Ala Ala Leu Pro Pro Cys Pro Thr Val Ala Ala Thr Ala
1 5 10 15
Asp Cys Glu Ile Cys Pro Ala Val Lys Arg Asp Val Asp Leu Phe Leu
20 25 30
Thr Gly Thr Pro Asp Glu Tyr Val Glu Gln Val Ala Gln Tyr Lys Ala
35 40 45
Leu Pro Val Val Leu Glu Asn Ala Arg Ile Leu Lys Asn Cys Val Asp
50 55 60
Ala Lys Met Thr Glu Glu Asp Lys Glu Asn Ala Leu Ser Leu Leu Asp
65 70 75 80

5538-1010seqlisting.txt

Lys Ile Tyr Thr Ser Pro Leu Cys
85

<210> 34

<211> 92

<212> PRT

<213> Felis catus

<400> 34

Met Lys Gly Ala Arg Val Leu Val Leu Leu Trp Ala Ala Leu Leu Leu
1 5 10 15
Ile Trp Gly Gly Asn Cys Glu Ile Cys Pro Ala Val Lys Arg Asp Val
20 25 30
Asp Leu Phe Leu Thr Gly Thr Pro Asp Glu Tyr Val Glu Gln Val Ala
35 40 45
Gln Tyr Lys Ala Leu Pro Val Val Leu Glu Asn Ala Arg Ile Leu Lys
50 55 60
Asn Cys Val Asp Ala Lys Met Thr Glu Glu Asp Lys Glu Asn Ala Leu
65 70 75 80
Ser Leu Leu Asp Lys Ile Tyr Thr Ser Pro Leu Cys
85 90

<210> 35

<211> 138

<212> PRT

<213> Hevea brasiliensis

<400> 35

Met Ala Glu Asp Glu Asp Asn Gln Gln Gly Gln Gly Glu Gly Leu Lys
1 5 10 15
Tyr Leu Gly Phe Val Gln Asp Ala Ala Thr Tyr Ala Val Thr Thr Phe
20 25 30
Ser Asn Val Tyr Leu Phe Ala Lys Asp Lys Ser Gly Pro Leu Gln Pro
35 40 45
Gly Val Asp Ile Ile Glu Gly Pro Val Lys Asn Val Ala Val Pro Leu
50 55 60
Tyr Asn Arg Phe Ser Tyr Ile Pro Asn Gly Ala Leu Lys Phe Val Asp
65 70 75 80
Ser Thr Val Val Ala Ser Val Thr Ile Ile Asp Arg Ser Leu Pro Pro
85 90 95

5538-1010seqlisting.txt

Ile Val Lys Asp Ala Ser Ile Gln Val Val Ser Ala Ile Arg Ala Ala
100 105 110

Pro Glu Ala Ala Arg Ser Leu Ala Ser Ser Leu Pro Gly Gln Thr Lys
115 120 125

Ile Leu Ala Lys Val Phe Tyr Gly Glu Asn
130 135

<210> 36

<211> 204

<212> PRT

<213> Hevea brasiliensis

<400> 36

Met Ala Glu Glu Val Glu Glu Glu Arg Leu Lys Tyr Leu Asp Phe Val
1 5 10 15

Arg Ala Ala Gly Val Tyr Ala Val Asp Ser Phe Ser Thr Leu Tyr Leu
20 25 30

Tyr Ala Lys Asp Ile Ser Gly Pro Leu Lys Pro Gly Val Asp Thr Ile
35 40 45

Glu Asn Val Val Lys Thr Val Val Thr Pro Val Tyr Tyr Ile Pro Leu
50 55 60

Glu Ala Val Lys Phe Val Asp Lys Thr Val Asp Val Ser Val Thr Ser
65 70 75 80

Leu Asp Gly Val Val Pro Pro Val Ile Lys Gln Val Ser Ala Gln Thr
85 90 95

Tyr Ser Val Ala Gln Asp Ala Pro Arg Ile Val Leu Asp Val Ala Ser
100 105 110

Ser Val Phe Asn Thr Gly Val Gln Glu Gly Ala Lys Ala Leu Tyr Ala
115 120 125

Asn Leu Glu Pro Lys Ala Glu Gln Tyr Ala Val Ile Thr Trp Arg Ala
130 135 140

Leu Asn Lys Leu Pro Leu Val Pro Gln Val Ala Asn Val Val Val Pro
145 150 155 160

Thr Ala Val Tyr Phe Ser Glu Lys Tyr Asn Asp Val Val Arg Gly Thr
165 170 175

Thr Glu Gln Gly Tyr Arg Val Ser Ser Tyr Leu Pro Leu Leu Pro Thr
180 185 190

Glu Lys Ile Thr Lys Val Phe Gly Asp Glu Ala Ser
195 200

<210> 37

<211> 263

<212> PRT

<213> *Lolium perenne*

<400> 37

Met Ala Ser Ser Ser Ser Val Leu Leu Val Val Ala Leu Phe Ala Val
 1 5 10 15
 Phe Leu Gly Ser Ala His Gly Ile Ala Lys Val Pro Pro Gly Pro Asn
 20 25 30
 Ile Thr Ala Glu Tyr Gly Asp Lys Trp Leu Asp Ala Lys Ser Thr Trp
 35 40 45
 Tyr Gly Lys Pro Thr Gly Ala Gly Pro Lys Asp Asn Gly Gly Ala Cys
 50 55 60
 Gly Tyr Lys Asn Val Asp Lys Ala Pro Phe Asn Gly Met Thr Gly Cys
 65 70 75 80
 Gly Asn Thr Pro Ile Phe Lys Asp Gly Arg Gly Cys Gly Ser Cys Phe
 85 90 95
 Glu Ile Lys Cys Thr Lys Pro Glu Ser Cys Ser Gly Glu Ala Val Thr
 100 105 110
 Val Thr Ile Thr Asp Asp Asn Glu Glu Pro Ile Ala Pro Tyr His Phe
 115 120 125
 Asp Leu Ser Gly His Ala Phe Gly Ser Met Ala Lys Lys Gly Glu Glu
 130 135 140
 Gln Asn Val Arg Ser Ala Gly Glu Leu Glu Leu Gln Phe Arg Arg Val
 145 150 155 160
 Lys Cys Lys Tyr Pro Asp Asp Thr Lys Pro Thr Phe His Val Glu Lys
 165 170 175
 Ala Ser Asn Pro Asn Tyr Leu Ala Ile Leu Val Lys Tyr Val Asp Gly
 180 185 190
 Asp Gly Asp Val Val Ala Val Asp Ile Lys Glu Lys Gly Lys Asp Lys
 195 200 205
 Trp Ile Glu Leu Lys Glu Ser Trp Gly Ala Val Trp Arg Ile Asp Thr
 210 215 220
 Pro Asp Lys Leu Thr Gly Pro Phe Thr Val Arg Tyr Thr Thr Glu Gly
 225 230 235 240
 Gly Thr Lys Ser Glu Phe Glu Asp Val Ile Pro Glu Gly Trp Lys Ala
 245 250 255
 Asp Thr Ser Tyr Ser Ala Lys
 260

<210> 38

<211> 97

<212> PRT

<213> Lolium perenne

<400> 38

Ala Ala Pro Val Glu Phe Thr Val Glu Lys Gly Ser Asp Glu Lys Asn
 1 5 10 15
 Leu Ala Leu Ser Ile Lys Tyr Asn Lys Glu Gly Asp Ser Met Ala Glu
 20 25 30
 Val Glu Leu Lys Glu His Gly Ser Asn Glu Trp Leu Ala Leu Lys Lys
 35 40 45
 Asn Gly Asp Gly Val Trp Glu Ile Lys Ser Asp Lys Pro Leu Lys Gly
 50 55 60
 Pro Phe Asn Phe Arg Phe Val Ser Glu Lys Gly Met Arg Asn Val Phe
 65 70 75 80
 Asp Asp Val Val Pro Ala Asp Phe Lys Val Gly Thr Thr Tyr Lys Pro
 85 90 95
 Glu

<210> 39

<211> 97

<212> PRT

<213> Lolium perenne

<400> 39

Thr Lys Val Asp Leu Thr Val Glu Lys Gly Ser Asp Ala Lys Thr Leu
 1 5 10 15
 Val Leu Asn Ile Lys Tyr Thr Arg Pro Gly Asp Thr Leu Ala Glu Val
 20 25 30
 Glu Leu Arg Gln His Gly Ser Glu Glu Trp Glu Pro Met Thr Lys Lys
 35 40 45
 Gly Asn Leu Trp Glu Val Lys Ser Ala Lys Pro Leu Thr Gly Pro Met
 50 55 60
 Asn Phe Arg Phe Leu Ser Lys Gly Gly Met Lys Asn Val Phe Asp Glu
 65 70 75 80
 Val Ile Pro Thr Ala Phe Thr Val Gly Lys Thr Tyr Thr Pro Glu Tyr
 85 90 95
 Asn

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<210> 40

<211> 308

<212> PRT

<213> Lolium perenne

<400> 40

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Met Ala Val Gln Lys Tyr Thr Val Ala Leu Phe Leu Arg Arg Gly Pro
1      5      10      15
Arg Gly Gly Pro Gly Arg Ser Tyr Ala Ala Asp Ala Gly Tyr Thr Pro
20     25     30
Ala Ala Ala Ala Thr Pro Ala Thr Pro Ala Ala Thr Pro Ala Gly Gly
35     40     45
Trp Arg Glu Gly Asp Asp Arg Arg Ala Glu Ala Ala Gly Gly Arg Gln
50     55     60
Arg Leu Ala Ser Arg Gln Pro Trp Pro Pro Leu Pro Thr Pro Leu Arg
65     70     75     80
Arg Thr Ser Ser Arg Ser Ser Arg Pro Pro Ser Pro Ser Pro Pro Arg
85     90     95
Ala Ser Ser Pro Thr Ser Ala Ala Lys Ala Pro Gly Leu Ile Pro Lys
100    105    110
Leu Asp Thr Ala Tyr Asp Val Ala Tyr Lys Ala Ala Glu Ala His Pro
115    120    125
Arg Gly Gln Val Arg Arg Leu Arg His Cys Pro His Arg Ser Leu Arg
130    135    140
Val Ile Ala Gly Ala Leu Glu Val His Ala Val Lys Pro Ala Thr Glu
145    150    155    160
Glu Val Leu Ala Ala Lys Ile Pro Thr Gly Glu Leu Gln Ile Val Asp
165    170    175
Lys Ile Asp Ala Ala Phe Lys Ile Ala Ala Thr Ala Ala Asn Ala Ala
180    185    190
Pro Thr Asn Asp Lys Phe Thr Val Phe Glu Ser Ala Phe Asn Lys Ala
195    200    205
Leu Asn Glu Cys Thr Gly Gly Ala Met Arg Pro Thr Ser Ser Ser Pro
210    215    220
Pro Ser Arg Pro Arg Ser Ser Arg Pro Thr Pro Pro Pro Ser Pro Ala
225    230    235    240
Ala Pro Glu Val Lys Tyr Ala Val Phe Glu Ala Ala Leu Thr Lys Ala
245    250    255
Ile Thr Ala Met Thr Gln Ala Gln Lys Ala Gly Lys Pro Ala Ala Ala
260    265    270

```

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Ala Ala Thr Ala Ala Ala Thr Val Ala Thr Ala Ala Ala Thr Ala Ala
275 280 285

Ala Val Leu Pro Pro Pro Leu Leu Val Val Gln Ser Leu Ile Ser Leu
290 295 300

Leu Ile Tyr Tyr
305

<210> 41

<211> 339

<212> PRT

<213> Lolium perenne

<400> 41

Met Ala Val Gln Lys His Thr Val Ala Leu Phe Leu Ala Val Ala Leu
1 5 10 15

Val Ala Gly Pro Ala Ala Ser Tyr Ala Ala Asp Ala Gly Tyr Ala Pro
20 25 30

Ala Thr Pro Ala Thr Pro Ala Ala Pro Ala Thr Ala Ala Thr Pro Ala
35 40 45

Thr Pro Ala Thr Pro Ala Thr Pro Ala Ala Val Pro Ser Gly Lys Ala
50 55 60

Thr Thr Glu Glu Gln Lys Leu Ile Glu Lys Ile Asn Ala Gly Phe Lys
65 70 75 80

Ala Ala Val Ala Ala Ala Ala Val Val Pro Pro Ala Asp Lys Tyr Lys
85 90 95

Thr Phe Val Glu Thr Phe Gly Thr Ala Thr Asn Lys Ala Phe Val Glu
100 105 110

Gly Leu Ala Ser Gly Tyr Ala Asp Gln Ser Lys Asn Gln Leu Thr Ser
115 120 125

Lys Leu Asp Ala Ala Leu Lys Leu Ala Tyr Glu Ala Ala Gln Gly Ala
130 135 140

Thr Pro Glu Ala Lys Tyr Asp Ala Tyr Val Ala Thr Leu Thr Glu Ala
145 150 155 160

Leu Arg Val Ile Ala Gly Thr Leu Glu Val His Ala Val Lys Pro Ala
165 170 175

Ala Glu Glu Val Lys Val Gly Ala Ile Pro Ala Ala Glu Val Gln Leu
180 185 190

Ile Asp Lys Val Asp Ala Ala Tyr Arg Thr Ala Ala Thr Ala Ala Asn
195 200 205

Ala Ala Pro Ala Asn Asp Lys Phe Thr Val Phe Glu Asn Thr Phe Asn
210 215 220

5538-1010seqlisting.txt

Asn Ala Ile Lys Val Ser Leu Gly Ala Ala Tyr Asp Ser Tyr Lys Phe
 225 230 235 240
 Ile Pro Thr Leu Val Ala Ala Val Lys Gln Ala Tyr Ala Ala Lys Gln
 245 250 255
 Ala Thr Ala Pro Glu Val Lys Tyr Thr Val Ser Glu Thr Ala Leu Lys
 260 265 270
 Lys Ala Val Thr Ala Met Ser Glu Ala Glu Lys Glu Ala Thr Pro Ala
 275 280 285
 Ala Ala Ala Thr Ala Thr Pro Thr Pro Ala Ala Ala Thr Ala Thr Ala
 290 295 300
 Thr Pro Ala Ala Ala Tyr Ala Thr Ala Thr Pro Ala Ala Ala Thr Ala
 305 310 315 320
 Thr Ala Thr Pro Ala Ala Ala Thr Ala Thr Pro Ala Ala Ala Gly Gly
 325 330 335

Tyr Lys Val

<210> 42

<211> 339

<212> PRT

<213> Lolium perenne

<400> 42

Met Ala Val Gln Lys His Thr Val Ala Leu Phe Leu Ala Val Ala Leu
 1 5 10 15
 Val Ala Gly Pro Ala Ala Ser Tyr Ala Ala Asp Ala Gly Tyr Ala Pro
 20 25 30
 Ala Thr Pro Ala Thr Pro Ala Ala Pro Ala Thr Ala Ala Thr Pro Ala
 35 40 45
 Thr Pro Ala Thr Pro Ala Thr Pro Ala Ala Val Pro Ser Gly Lys Ala
 50 55 60
 Thr Thr Glu Glu Gln Lys Leu Ile Glu Lys Ile Asn Ala Gly Phe Lys
 65 70 75 80
 Ala Ala Val Ala Ala Ala Ala Val Val Pro Pro Ala Asp Lys Tyr Lys
 85 90 95
 Thr Phe Val Glu Thr Phe Gly Thr Ala Thr Asn Lys Ala Phe Val Glu
 100 105 110
 Gly Leu Ala Ser Gly Tyr Ala Asp Gln Ser Lys Asn Gln Leu Thr Ser
 115 120 125
 Lys Leu Asp Ala Ala Leu Lys Leu Ala Tyr Glu Ala Ala Gln Gly Ala
 130 135 140

5538-1010seqlisting.txt

Thr Pro Glu Ala Lys Tyr Asp Ala Tyr Val Ala Thr Leu Thr Glu Ala
145 150 155 160
Leu Arg Val Ile Ala Gly Thr Leu Glu Val His Ala Val Lys Pro Ala
165 170 175
Ala Glu Glu Val Lys Val Gly Ala Ile Pro Ala Ala Glu Val Gln Leu
180 185 190
Ile Asp Lys Val Asp Ala Ala Tyr Arg Thr Ala Ala Thr Ala Ala Asn
195 200 205
Ala Ala Pro Ala Asn Asp Lys Phe Thr Val Phe Glu Asn Thr Phe Asn
210 215 220
Asn Ala Ile Lys Val Ser Leu Gly Ala Ala Tyr Asp Ser Tyr Lys Phe
225 230 235
Ile Pro Thr Leu Val Ala Ala Val Lys Gln Ala Tyr Ala Ala Lys Gln
245 250 255
Ala Thr Ala Pro Glu Val Lys Tyr Thr Val Ser Glu Thr Ala Leu Lys
260 265 270
Lys Ala Val Thr Ala Met Ser Glu Ala Glu Lys Glu Ala Thr Pro Ala
275 280 285
Ala Ala Ala Thr Ala Thr Pro Thr Pro Ala Ala Ala Thr Ala Thr Ala
290 295 300
Thr Pro Ala Ala Ala Tyr Ala Thr Ala Thr Pro Ala Ala Ala Thr Ala
305 310 315 320
Thr Ala Thr Pro Ala Ala Ala Thr Ala Thr Pro Ala Ala Ala Gly Gly
325 330 335

Tyr Lys Val

<210> 43

<211> 134

<212> PRT

<213> Lolium perenne

<220>

<221> misc_feature

<223> X is unknown amino acid

<400> 43

Asp Lys Gly Pro Gly Phe Val Val Thr Gly Arg Val Tyr Cys Asp Pro
1 5 10 15

Cys Arg Ala Gly Phe Glu Thr Asn Val Ser His Asn Val Glu Gly Ala
 20 25 30
 Thr Val Ala Val Asp Cys Arg Pro Phe Asp Gly Gly Glu Ser Lys Leu
 35 40 45
 Lys Ala Glu Ala Thr Thr Asp Lys Asp Gly Trp Tyr Lys Ile Glu Ile
 50 55 60
 Asp Gln Asp His Gln Glu Glu Ile Cys Glu Val Val Leu Ala Lys Ser
 65 70 75 80
 Pro Asp Lys Ser Cys Ser Glu Ile Glu Glu Phe Arg Asp Arg Ala Arg
 85 90 95
 Val Pro Leu Thr Ser Asn Xaa Gly Ile Lys Gln Gln Gly Ile Arg Tyr
 100 105 110
 Ala Asn Pro Ile Ala Phe Phe Arg Lys Glu Pro Leu Lys Glu Cys Gly
 115 120 125
 Gly Ile Leu Gln Ala Tyr
 130

<210> 44

<211> 145

<212> PRT

<213> Olea europaea

<400> 44

Glu Asp Ile Pro Gln Pro Pro Val Ser Gln Phe His Ile Gln Gly Gln
 1 5 10 15
 Val Tyr Cys Asp Thr Cys Arg Ala Gly Phe Ile Thr Glu Leu Ser Glu
 20 25 30
 Phe Ile Pro Gly Ala Ser Leu Arg Leu Gln Cys Lys Asp Lys Glu Asn
 35 40 45
 Gly Asp Val Thr Phe Thr Glu Val Gly Tyr Thr Arg Ala Glu Gly Leu
 50 55 60
 Tyr Ser Met Leu Val Glu Arg Asp His Lys Asn Glu Phe Cys Glu Ile
 65 70 75 80
 Thr Leu Ile Ser Ser Gly Arg Lys Asp Cys Asn Glu Ile Pro Thr Glu
 85 90 95
 Gly Trp Ala Lys Pro Ser Leu Lys Phe Lys Leu Asn Thr Val Asn Gly
 100 105 110
 Thr Thr Arg Thr Val Asn Pro Leu Gly Phe Phe Lys Lys Glu Ala Leu
 115 120 125
 Pro Lys Cys Ala Gln Val Tyr Asn Lys Leu Gly Met Tyr Pro Pro Asn
 130 135 140

5538-1010seqlisting.txt

Met
145

<210> 45

<211> 133

<212> PRT

<213> Parietaria judaica

<400> 45

```
Met Arg Thr Val Ser Met Ala Ala Leu Val Val Ile Ala Ala Ala Leu
1      5      10      15
Ala Trp Thr Ser Ser Ala Glu Pro Ala Pro Ala Pro Ala Pro Gly Glu
20     25     30
Glu Ala Cys Gly Lys Val Val Gln Asp Ile Met Pro Cys Leu His Phe
35     40     45
Val Lys Gly Glu Glu Lys Glu Pro Ser Lys Glu Cys Cys Ser Gly Thr
50     55     60
Lys Lys Leu Ser Glu Glu Val Lys Thr Thr Glu Gln Lys Arg Glu Ala
65     70     75     80
Cys Lys Cys Ile Val Arg Ala Thr Lys Gly Ile Ser Gly Ile Lys Asn
85     90     95
Glu Leu Val Ala Glu Val Pro Lys Lys Cys Asp Ile Lys Thr Thr Leu
100    105    110
Pro Pro Ile Thr Ala Asp Phe Asp Cys Ser Lys Ile Gln Ser Thr Ile
115    120    125
Phe Arg Gly Tyr Tyr
130
```

<210> 46

<211> 133

<212> PRT

<213> Parietaria judaica

<400> 46

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Met Val Arg Ala Leu Met Pro Cys Leu Pro Phe Val Gln Gly Lys Glu
1      5      10      15
Lys Glu Pro Ser Lys Gly Cys Cys Ser Gly Ala Lys Arg Leu Asp Gly
20     25     30
Glu Thr Lys Thr Gly Pro Gln Arg Val His Ala Cys Glu Cys Ile Gln
35     40     45
```

5538-1010seqlisting.txt

Thr Ala Met Lys Thr Tyr Ser Asp Ile Asp Gly Lys Leu Val Ser Glu
 50 55 60

Val Pro Lys His Cys Gly Ile Val Asp Ser Lys Leu Pro Pro Ile Asp
 65 70 75 80

Val Asn Met Asp Cys Lys Thr Val Gly Val Val Pro Arg Gln Pro Gln
 85 90 95

Leu Pro Val Ser Leu Arg His Gly Pro Val Thr Gly Pro Ser Asp Pro
 100 105 110

Ala His Lys Ala Arg Leu Glu Arg Pro Gln Ile Arg Val Pro Pro Pro
 115 120 125

Ala Pro Glu Lys Ala
 130

<210> 47

<211> 133

<212> PRT

<213> Parietaria judaica

<400> 47

Met Arg Thr Val Ser Met Ala Ala Leu Val Val Ile Ala Ala Ala Leu
 1 5 10 15

Ala Trp Thr Ser Ser Ala Glu Leu Ala Ser Ala Pro Ala Pro Gly Glu
 20 25 30

Gly Pro Cys Gly Lys Val Val His His Ile Met Pro Cys Leu Lys Phe
 35 40 45

Val Lys Gly Glu Glu Lys Glu Pro Ser Lys Ser Cys Cys Ser Gly Thr
 50 55 60

Lys Lys Leu Ser Glu Glu Val Lys Thr Thr Glu Gln Lys Arg Glu Ala
 65 70 75 80

Cys Lys Cys Ile Val Ala Ala Thr Lys Gly Ile Ser Gly Ile Lys Asn
 85 90 95

Glu Leu Val Ala Glu Val Pro Lys Lys Cys Gly Ile Thr Thr Thr Leu
 100 105 110

Pro Pro Ile Thr Ala Asp Phe Asp Cys Ser Lys Ile Glu Ser Thr Ile
 115 120 125

Phe Arg Gly Tyr Tyr
 130

<210> 48

<211> 176

<212> PRT

<213> Parietaria judaica

<400> 48

Met Arg Thr Val Ser Ala Pro Ser Ala Val Ala Leu Val Val Ile Val
 1 5 10 15
 Ala Ala Gly Leu Ala Trp Thr Ser Leu Ala Ser Val Ala Pro Pro Ala
 20 25 30
 Pro Ala Pro Gly Ser Glu Glu Thr Cys Gly Thr Val Val Arg Ala Leu
 35 40 45
 Met Pro Cys Leu Pro Phe Val Gln Gly Lys Glu Lys Glu Pro Ser Lys
 50 55 60
 Gly Cys Cys Ser Gly Ala Lys Arg Leu Asp Gly Glu Thr Lys Thr Gly
 65 70 75 80
 Leu Gln Arg Val His Ala Cys Glu Cys Ile Gln Thr Ala Met Lys Thr
 85 90 95
 Tyr Ser Asp Ile Asp Gly Lys Leu Val Ser Glu Val Pro Lys His Cys
 100 105 110
 Gly Ile Val Asp Ser Lys Leu Pro Pro Ile Asp Val Asn Met Asp Cys
 115 120 125
 Lys Thr Leu Gly Val Val Pro Arg Gln Pro Gln Leu Pro Val Ser Leu
 130 135 140
 Arg His Gly Pro Val Thr Gly Pro Ser Asp Pro Ala His Lys Ala Arg
 145 150 155 160
 Leu Glu Arg Pro Gln Ile Arg Val Pro Pro Pro Ala Pro Glu Lys Ala
 165 170 175

<210> 49

<211> 138

<212> PRT

<213> Parietaria judaica

<400> 49

Met Arg Thr Val Ser Ala Arg Ser Ser Val Ala Leu Val Val Ile Val
 1 5 10 15
 Ala Ala Val Leu Val Trp Thr Ser Ser Ala Ser Val Ala Pro Ala Pro
 20 25 30
 Ala Pro Gly Ser Glu Glu Thr Cys Gly Thr Val Val Gly Ala Leu Met
 35 40 45
 Pro Cys Leu Pro Phe Val Gln Gly Lys Glu Lys Glu Pro Ser Lys Gly
 50 55 60

5538-1010seqlisting.txt

Cys Cys Ser Gly Ala Lys Arg Leu Asp Gly Glu Thr Lys Thr Gly Pro
65 70 75 80

Gln Arg Val His Ala Cys Glu Cys Ile Gln Thr Ala Met Lys Thr Tyr
85 90 95

Ser Asp Ile Asp Gly Lys Leu Val Ser Glu Val Pro Lys His Cys Gly
100 105 110

Ile Val Asp Ser Lys Leu Pro Pro Ile Asp Val Asn Met Asp Cys Lys
115 120 125

Thr Leu Gly Val Leu His Tyr Lys Gly Asn
130 135

<210> 50

<211> 143

<212> PRT

<213> Parietaria judaica

<400> 50

Met Val Arg Ala Leu Met Pro Cys Leu Pro Phe Val Gln Gly Lys Glu
1 5 10 15

Lys Glu Pro Ser Lys Gly Cys Cys Ser Gly Ala Lys Arg Leu Asp Gly
20 25 30

Glu Thr Lys Thr Gly Pro Gln Arg Val His Ala Cys Glu Cys Ile Gln
35 40 45

Thr Ala Met Lys Thr Tyr Ser Asp Ile Asp Gly Lys Leu Val Ser Glu
50 55 60

Val Pro Lys His Cys Gly Ile Val Asp Ser Lys Leu Pro Pro Ile Asp
65 70 75 80

Val Asn Met Asp Cys Lys Thr Val Gly Val Val Pro Arg Gln Pro Gln
85 90 95

Leu Pro Val Ser Leu Arg His Gly Pro Val Thr Gly Pro Ser Arg Ser
100 105 110

Arg Pro Pro Thr Lys His Gly Trp Arg Asp Pro Arg Leu Glu Phe Arg
115 120 125

Pro Pro His Arg Lys Lys Pro Asn Pro Ala Phe Ser Thr Leu Gly
130 135 140

<210> 51

<211> 263

<212> PRT

<213> Phleum pratense

<400> 51

Met Ala Ser Ser Ser Ser Val Leu Leu Val Val Val Leu Phe Ala Val
 1 5 10 15
 Phe Leu Gly Ser Ala Tyr Gly Ile Pro Lys Val Pro Pro Gly Pro Asn
 20 25 30
 Ile Thr Ala Thr Tyr Gly Asp Lys Trp Leu Asp Ala Lys Ser Thr Trp
 35 40 45
 Tyr Gly Lys Pro Thr Gly Ala Gly Pro Lys Asp Asn Gly Gly Ala Cys
 50 55 60
 Gly Tyr Lys Asp Val Asp Lys Pro Pro Phe Ser Gly Met Thr Gly Cys
 65 70 75 80
 Gly Asn Thr Pro Ile Phe Lys Ser Gly Arg Gly Cys Gly Ser Cys Phe
 85 90 95
 Glu Ile Lys Cys Thr Lys Pro Glu Ala Cys Ser Gly Glu Pro Val Val
 100 105 110
 Val His Ile Thr Asp Asp Asn Glu Glu Pro Ile Ala Pro Tyr His Phe
 115 120 125
 Asp Leu Ser Gly His Ala Phe Gly Ala Met Ala Lys Lys Gly Asp Glu
 130 135 140
 Gln Lys Leu Arg Ser Ala Gly Glu Leu Glu Leu Gln Phe Arg Arg Val
 145 150 155 160
 Lys Cys Lys Tyr Pro Glu Gly Thr Lys Val Thr Phe His Val Glu Lys
 165 170 175
 Gly Ser Asn Pro Asn Tyr Leu Ala Leu Leu Val Lys Tyr Val Asn Gly
 180 185 190
 Asp Gly Asp Val Val Ala Val Asp Ile Lys Glu Lys Gly Lys Asp Lys
 195 200 205
 Trp Ile Glu Leu Lys Glu Ser Trp Gly Ala Ile Trp Arg Ile Asp Thr
 210 215 220
 Pro Asp Lys Leu Thr Gly Pro Phe Thr Val Arg Tyr Thr Thr Glu Gly
 225 230 235 240
 Gly Thr Lys Thr Glu Ala Glu Asp Val Ile Pro Glu Gly Trp Lys Ala
 245 250 255
 Asp Thr Ser Tyr Glu Ser Lys
 260

<210> 52

<211> 262

<212> PRT

<213> Phleum pratense

<400> 52

Met Ala Ser Ser Ser Ser Val Leu Leu Val Val Ala Leu Phe Ala Val
 1 5 10 15
 Phe Leu Gly Ser Ala His Gly Ile Pro Lys Val Pro Pro Gly Pro Asn
 20 25 30
 Ile Thr Ala Thr Tyr Gly Asp Lys Trp Leu Asp Ala Lys Ser Thr Trp
 35 40 45
 Tyr Gly Lys Pro Thr Ala Ala Gly Pro Lys Asp Asn Gly Gly Ala Cys
 50 55 60
 Gly Tyr Lys Asp Val Asp Lys Pro Pro Phe Ser Gly Met Thr Gly Cys
 65 70 75 80
 Gly Asn Thr Pro Ile Phe Lys Ser Gly Arg Gly Cys Gly Ser Cys Phe
 85 90 95
 Glu Ile Lys Cys Thr Lys Pro Glu Ala Cys Ser Gly Glu Pro Val Val
 100 105 110
 Val His Ile Thr Asp Asp Asn Glu Glu Pro Ile Ala Ala Tyr His Phe
 115 120 125
 Asp Leu Ser Gly Ile Ala Phe Gly Ser Met Ala Lys Lys Gly Asp Glu
 130 135 140
 Gln Lys Leu Arg Ser Ala Gly Glu Val Glu Ile Gln Phe Arg Arg Val
 145 150 155 160
 Lys Cys Lys Tyr Pro Glu Gly Thr Lys Val Thr Phe His Val Glu Lys
 165 170 175
 Gly Ser Asn Pro Asn Tyr Leu Ala Leu Leu Val Lys Phe Ser Gly Asp
 180 185 190
 Gly Asp Val Val Ala Val Asp Ile Lys Glu Lys Gly Lys Asp Lys Trp
 195 200 205
 Ile Ala Leu Lys Glu Ser Trp Gly Ala Ile Trp Arg Ile Asp Thr Pro
 210 215 220
 Glu Val Leu Lys Gly Pro Phe Thr Val Arg Tyr Thr Thr Glu Gly Gly
 225 230 235 240
 Thr Lys Ala Arg Ala Lys Asp Val Ile Pro Glu Gly Trp Lys Ala Asp
 245 250 255
 Thr Ala Tyr Glu Ser Lys
 260

<210> 53

<211> 122

<212> PRT

<213> Phleum pratense

5538-1010seqlisting.txt

<400> 53

Met Ser Met Ala Ser Ser Ser Ser Ser Ser Leu Leu Ala Met Ala Val
 1 5 10 15
 Leu Ala Ala Leu Phe Ala Gly Ala Trp Cys Val Pro Lys Val Thr Phe
 20 25 30
 Thr Val Glu Lys Gly Ser Asn Glu Lys His Leu Ala Val Leu Val Lys
 35 40 45
 Tyr Glu Gly Asp Thr Met Ala Glu Val Glu Leu Arg Glu His Gly Ser
 50 55 60
 Asp Glu Trp Val Ala Met Thr Lys Gly Glu Gly Gly Val Trp Thr Phe
 65 70 75 80
 Asp Ser Glu Glu Pro Leu Gln Gly Pro Phe Asn Phe Arg Phe Leu Thr
 85 90 95
 Glu Lys Gly Met Lys Asn Val Phe Asp Asp Val Val Pro Glu Lys Tyr
 100 105 110
 Thr Ile Gly Ala Thr Tyr Ala Pro Glu Glu
 115 120

<210> 54

<211> 276

<212> PRT

<213> Phleum pratense

<400> 54

Ala Asp Leu Gly Tyr Gly Gly Pro Ala Thr Pro Ala Ala Pro Ala Glu
 1 5 10 15
 Ala Ala Pro Ala Gly Lys Ala Thr Thr Glu Glu Gln Lys Leu Ile Glu
 20 25 30
 Lys Ile Asn Asp Gly Phe Lys Ala Ala Leu Ala Ala Ala Ala Gly Val
 35 40 45
 Pro Pro Ala Asp Lys Tyr Lys Thr Phe Val Ala Thr Phe Gly Ala Ala
 50 55 60
 Ser Asn Lys Ala Phe Ala Glu Gly Leu Ser Ala Glu Pro Lys Gly Ala
 65 70 75 80
 Ala Glu Ser Ser Ser Lys Ala Ala Leu Thr Ser Lys Leu Asp Ala Ala
 85 90 95
 Tyr Lys Leu Ala Tyr Lys Thr Ala Glu Gly Ala Thr Pro Glu Ala Lys
 100 105 110
 Tyr Asp Ala Tyr Val Ala Thr Leu Ser Glu Ala Leu Arg Ile Ile Ala
 115 120 125

Gly Thr Leu Glu Val His Ala Val Lys Pro Ala Ala Glu Glu Val Lys
 130 135 140
 Val Ile Pro Ala Gly Glu Leu Gln Val Ile Glu Lys Val Asp Ser Ala
 145 150 155 160
 Phe Lys Val Ala Ala Thr Ala Ala Asn Ala Ala Pro Ala Asn Asp Lys
 165 170 175
 Phe Thr Val Phe Glu Ala Ala Phe Asn Asn Ala Ile Lys Ala Ser Thr
 180 185 190
 Gly Gly Ala Tyr Glu Ser Tyr Lys Phe Ile Pro Ala Leu Glu Ala Ala
 195 200 205
 Val Lys Gln Ala Tyr Ala Ala Thr Val Ala Thr Ala Pro Glu Val Lys
 210 215 220
 Tyr Thr Val Phe Glu Thr Ala Leu Lys Lys Ala Phe Thr Ala Met Ser
 225 230 235 240
 Glu Ala Gln Lys Ala Ala Lys Pro Ala Thr Glu Ala Thr Ala Thr Ala
 245 250 255
 Thr Ala Ala Val Gly Ala Ala Thr Gly Ala Ala Thr Ala Ala Thr Gly
 260 265 270
 Gly Tyr Lys Val
 275

<210> 55

<211> 276

<212> PRT

<213> Phleum pratense

<400> 55

Ala Asp Leu Gly Tyr Gly Gly Pro Ala Thr Pro Ala Ala Pro Ala Glu
 1 5 10 15
 Ala Ala Pro Ala Gly Lys Ala Thr Thr Glu Glu Gln Lys Leu Ile Glu
 20 25 30
 Lys Ile Asn Asp Gly Phe Lys Ala Ala Leu Ala Ala Ala Gly Val
 35 40 45
 Pro Pro Ala Asp Lys Tyr Lys Thr Phe Val Ala Thr Phe Gly Ala Ala
 50 55 60
 Ser Asn Lys Ala Phe Ala Glu Gly Leu Ser Ala Glu Pro Lys Gly Ala
 65 70 75 80
 Ala Glu Ser Ser Ser Lys Ala Ala Leu Thr Ser Lys Leu Asp Ala Ala
 85 90 95
 Tyr Lys Leu Ala Tyr Lys Thr Ala Glu Gly Ala Thr Pro Glu Ala Lys
 100 105 110

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Tyr Asp Ala Tyr Val Ala Thr Leu Ser Glu Ala Leu Arg Ile Ile Ala
115 120 125
Gly Thr Leu Glu Val His Ala Val Lys Pro Ala Ala Glu Glu Val Lys
130 135 140
Val Ile Pro Ala Gly Glu Leu Gln Val Ile Glu Lys Val Asp Ser Ala
145 150 155 160
Phe Lys Val Ala Ala Thr Ala Ala Asn Ala Ala Pro Ala Asn Asp Lys
165 170 175
Phe Thr Val Phe Glu Ala Ala Phe Asn Asn Ala Ile Lys Ala Ser Thr
180 185 190
Gly Gly Ala Tyr Glu Ser Tyr Lys Phe Ile Pro Ala Leu Glu Ala Ala
195 200 205
Val Lys Gln Ala Tyr Ala Ala Thr Val Ala Thr Ala Pro Glu Val Lys
210 215 220
Tyr Thr Val Phe Glu Thr Ala Leu Lys Lys Ala Ile Thr Ala Met Ser
225 230 235 240
Glu Ala Gln Lys Ala Ala Lys Pro Ala Thr Glu Ala Thr Ala Thr Ala
245 250 255
Thr Ala Ala Val Gly Ala Ala Thr Gly Ala Ala Thr Ala Ala Thr Gly
260 265 270
Gly Tyr Lys Val
275

<210> 56

<211> 284

<212> PRT

<213> Phleum pratense

<400> 56

Ala Ala Ala Ala Val Pro Arg Arg Gly Pro Arg Gly Gly Pro Gly Arg
1 5 10 15
Ser Tyr Thr Ala Asp Ala Gly Tyr Ala Pro Ala Thr Pro Ala Ala Ala
20 25 30
Gly Ala Ala Ala Gly Lys Ala Thr Thr Glu Glu Gln Lys Leu Ile Glu
35 40 45
Asp Ile Asn Val Gly Phe Lys Ala Ala Val Ala Ala Ala Ser Val
50 55 60
Pro Ala Ala Asp Lys Phe Lys Thr Phe Glu Ala Ala Phe Thr Ser Ser
65 70 75 80
Ser Lys Ala Ala Ala Ala Lys Ala Pro Gly Leu Val Pro Lys Leu Asp
85 90 95

5538-1010seqlisting.txt

Ala Ala Tyr Ser Val Ala Tyr Lys Ala Ala Val Gly Ala Thr Pro Glu
100 105 110
Ala Lys Phe Asp Ser Phe Val Ala Ser Leu Thr Glu Ala Leu Arg Val
115 120 125
Ile Ala Gly Ala Leu Glu Val His Ala Val Lys Pro Val Thr Glu Glu
130 135 140
Pro Gly Met Ala Lys Ile Pro Ala Gly Glu Leu Gln Ile Ile Asp Lys
145 150 155 160
Ile Asp Ala Ala Phe Lys Val Ala Ala Thr Ala Ala Ala Thr Ala Pro
165 170 175
Ala Asp Asp Lys Phe Thr Val Phe Glu Ala Ala Phe Asn Lys Ala Ile
180 185 190
Lys Glu Ser Thr Gly Gly Ala Tyr Asp Thr Tyr Lys Cys Ile Pro Ser
195 200 205
Leu Glu Ala Ala Val Lys Gln Ala Tyr Ala Ala Thr Val Ala Ala Ala
210 215 220
Pro Gln Val Lys Tyr Ala Val Phe Glu Ala Ala Leu Thr Lys Ala Ile
225 230 235 240
Thr Ala Met Ser Glu Val Gln Lys Val Ser Gln Pro Ala Thr Gly Ala
245 250 255
Ala Thr Val Ala Ala Gly Ala Ala Thr Thr Ala Ala Gly Ala Ala Ser
260 265 270
Gly Ala Ala Thr Val Ala Ala Gly Gly Tyr Lys Val
275 280

<210> 57

<211> 286

<212> PRT

<213> Phleum pratense

<400> 57

Ala Asp Leu Gly Tyr Gly Pro Ala Thr Pro Ala Ala Pro Ala Ala Gly
1 5 10 15
Tyr Thr Pro Ala Thr Pro Ala Ala Pro Ala Gly Ala Asp Ala Ala Gly
20 25 30
Lys Ala Thr Thr Glu Glu Gln Lys Leu Ile Glu Lys Ile Asn Ala Gly
35 40 45
Phe Lys Ala Ala Leu Ala Gly Ala Gly Val Gln Pro Ala Asp Lys Tyr
50 55 60
Arg Thr Phe Val Ala Thr Phe Gly Pro Ala Ser Asn Lys Ala Phe Ala
65 70 75 80

5538-1010seqlisting.txt

Glu Gly Leu Ser Gly Glu Pro Lys Gly Ala Ala Glu Ser Ser Ser Lys
 85 90
 Ala Ala Leu Thr Ser Lys Leu Asp Ala Ala Tyr Lys Leu Ala Tyr Lys
 100 105 110
 Thr Ala Glu Gly Ala Thr Pro Glu Ala Lys Tyr Asp Ala Tyr Val Ala
 115 120 125
 Thr Leu Ser Glu Ala Leu Arg Ile Ile Ala Gly Thr Leu Glu Val His
 130 135 140
 Ala Val Lys Pro Ala Ala Glu Glu Val Lys Val Ile Pro Ala Gly Glu
 145 150 155 160
 Leu Gln Val Ile Glu Lys Val Asp Ala Ala Phe Lys Val Ala Ala Thr
 165 170 175
 Ala Ala Asn Ala Ala Pro Ala Asn Asp Lys Phe Thr Val Phe Glu Ala
 180 185 190
 Ala Phe Asn Asp Glu Ile Lys Ala Ser Thr Gly Gly Ala Tyr Glu Ser
 195 200 205
 Tyr Lys Phe Ile Pro Ala Leu Glu Ala Ala Val Lys Gln Ala Tyr Ala
 210 215 220
 Ala Thr Val Ala Thr Ala Pro Glu Val Lys Tyr Thr Val Phe Glu Thr
 225 230 235 240
 Ala Leu Lys Lys Ala Ile Thr Ala Met Ser Glu Ala Gln Lys Ala Ala
 245 250 255
 Lys Pro Ala Ala Ala Ala Thr Ala Thr Ala Thr Ala Ala Val Gly Ala
 260 265 270
 Ala Thr Gly Ala Ala Thr Ala Ala Thr Gly Gly Tyr Lys Val
 275 280 285

<210> 58

<211> 287

<212> PRT

<213> Phleum pratense

<400> 58

Met Ala Val Gln Lys Tyr Thr Val Ala Leu Phe Leu Ala Val Ala Leu
 1 5 10 15
 Val Ala Gly Pro Ala Ala Ser Tyr Ala Ala Asp Ala Gly Tyr Ala Pro
 20 25 30
 Ala Thr Pro Ala Ala Ala Gly Ala Glu Ala Gly Lys Ala Thr Thr Glu
 35 40 45
 Glu Gln Lys Leu Ile Glu Asp Ile Asn Val Gly Phe Lys Ala Ala Val
 50 55 60

5538-1010seqlisting.txt

Ala Ala Ala Ala Ser Val Pro Ala Ala Asp Lys Phe Lys Thr Phe Glu
65 70 75 80
Ala Ala Phe Thr Ser Ser Ser Lys Ala Ala Thr Ala Lys Ala Pro Gly
85 90 95
Leu Val Pro Lys Leu Asp Ala Ala Tyr Ser Val Ser Tyr Lys Ala Ala
100 105 110
Val Gly Ala Thr Pro Glu Ala Lys Phe Asp Ser Phe Val Ala Ser Leu
115 120 125
Thr Glu Ala Leu Arg Val Ile Ala Gly Ala Leu Glu Val His Ala Val
130 135 140
Lys Pro Val Thr Glu Glu Pro Gly Met Ala Lys Ile Pro Ala Gly Glu
145 150 155 160
Leu Gln Ile Ile Asp Lys Ile Asp Ala Ala Phe Lys Val Ala Ala Thr
165 170 175
Ala Ala Ala Thr Ala Pro Ala Asp Thr Val Phe Glu Ala Ala Phe Asn
180 185 190
Lys Ala Ile Lys Glu Ser Thr Gly Gly Ala Tyr Asp Thr Tyr Lys Cys
195 200 205
Ile Pro Ser Leu Glu Ala Ala Val Lys Gln Ala Tyr Ala Ala Thr Val
210 215 220
Ala Ala Ala Pro Gln Val Lys Tyr Ala Val Phe Glu Ala Ala Leu Thr
225 230 235 240
Lys Ala Ile Thr Ala Met Ser Glu Val Gln Lys Val Ser Gln Pro Ala
245 250 255
Thr Gly Ala Ala Thr Val Ala Ala Gly Ala Ala Thr Thr Ala Ala Gly
260 265 270
Ala Ala Ser Gly Ala Ala Thr Val Ala Ala Gly Gly Tyr Lys Val
275 280 285

<210> 59

<211> 290

<212> PRT

<213> Phleum pratense

<400> 59

Met Ala Val Gln Lys Tyr Thr Val Ala Leu Phe Leu Ala Val Ala Leu
1 5 10 15
Val Ala Gly Pro Ala Ala Ser Tyr Ala Ala Asp Ala Gly Tyr Ala Pro
20 25 30
Ala Thr Pro Ala Ala Ala Gly Ala Glu Ala Gly Lys Ala Thr Thr Glu
35 40 45

5538-1010seqlisting.txt

Glu Gln Lys Leu Ile Glu Asp Ile Asn Val Gly Phe Lys Ala Ala Val
50 55 60
Ala Ala Ala Ala Ser Val Pro Ala Ala Asp Lys Phe Lys Thr Phe Glu
65 70 75 80
Ala Ala Phe Thr Ser Ser Ser Lys Ala Ala Thr Ala Lys Ala Pro Gly
85 90 95
Leu Val Pro Lys Leu Asp Ala Ala Tyr Ser Val Ala Tyr Lys Ala Ala
100 105 110
Val Gly Ala Thr Pro Glu Ala Lys Phe Asp Ser Phe Val Ala Ser Leu
115 120 125
Thr Glu Ala Leu Arg Val Ile Ala Gly Ala Leu Glu Val His Ala Val
130 135 140
Lys Pro Val Thr Glu Asp Pro Ala Trp Pro Lys Ile Pro Ala Gly Glu
145 150 155 160
Leu Gln Ile Ile Asp Lys Ile Asp Ala Ala Phe Lys Val Ala Ala Thr
165 170 175
Ala Ala Ala Thr Ala Pro Ala Asp Asp Lys Phe Thr Val Phe Glu Ala
180 185 190
Ala Phe Asn Lys Ala Ile Lys Glu Ser Thr Gly Gly Ala Tyr Asp Thr
195 200 205
Tyr Lys Cys Ile Pro Ser Leu Glu Ala Ala Val Lys Gln Ala Tyr Ala
210 215 220
Ala Thr Val Ala Ala Ala Pro Gln Val Lys Tyr Ala Val Phe Glu Ala
225 230 235 240
Ala Leu Thr Lys Ala Ile Thr Ala Met Ser Glu Val Gln Lys Val Ser
245 250 255
Gln Pro Ala Thr Gly Ala Ala Thr Val Ala Ala Gly Ala Ala Thr Thr
260 265 270
Ala Thr Gly Ala Ala Ser Gly Ala Ala Thr Val Ala Ala Gly Gly Tyr
275 280 285
Lys Val
290

<210> 60

<211> 265

<212> PRT

<213> Phleum pratense

<400> 60

Ala Asp Ala Gly Tyr Ala Pro Ala Thr Pro Ala Ala Ala Gly Ala Glu
1 5 10 15

5538-1010seqlisting.txt

Ala Gly Lys Ala Thr Thr Glu Glu Gln Lys Leu Ile Glu Asp Ile Asn
 20 25 30
 Val Gly Phe Lys Ala Ala Val Ala Ala Ala Ser Val Pro Ala Ala
 35 40 45
 Asp Lys Phe Lys Thr Phe Glu Ala Ala Phe Thr Ser Ser Ser Lys Ala
 50 55 60
 Ala Thr Ala Lys Ala Pro Gly Leu Val Pro Lys Leu Asp Ala Ala Tyr
 65 70 75 80
 Ser Val Ala Tyr Lys Ala Ala Val Gly Ala Thr Pro Glu Ala Lys Phe
 85 90 95
 Asp Ser Phe Val Ala Ser Leu Thr Glu Ala Leu Arg Val Ile Ala Gly
 100 105 110
 Ala Leu Glu Val His Ala Val Lys Pro Val Thr Glu Glu Pro Gly Met
 115 120 125
 Ala Lys Ile Pro Ala Gly Glu Leu Gln Ile Ile Asp Lys Ile Asp Ala
 130 135 140
 Ala Phe Lys Val Ala Ala Thr Ala Ala Ala Thr Ala Pro Ala Asp Asp
 145 150 155 160
 Lys Phe Thr Val Phe Glu Ala Ala Phe Asn Lys Ala Ile Lys Glu Ser
 165 170 175
 Thr Gly Gly Ala Tyr Asp Thr Tyr Lys Cys Ile Pro Ser Leu Glu Ala
 180 185 190
 Ala Val Lys Gln Ala Tyr Ala Ala Thr Val Ala Ala Ala Pro Gln Val
 195 200 205
 Lys Tyr Ala Val Phe Glu Ala Ala Leu Thr Lys Ala Ile Thr Ala Met
 210 215 220
 Ser Glu Val Gln Lys Val Ser Gln Pro Ala Thr Gly Ala Ala Thr Val
 225 230 235 240
 Ala Ala Gly Ala Ala Thr Thr Ala Ala Gly Ala Ala Ser Gly Ala Ala
 245 250 255
 Thr Val Ala Ala Gly Gly Tyr Lys Val
 260 265

<210> 61

<211> 295

<212> PRT

<213> Phleum pratense

<400> 61

Ser Val Lys Arg Ser Asn Gly Ser Ala Glu Val His Arg Gly Ala Val
 1 5 10 15

5538-1010seqlisting.txt

Pro Arg Arg Gly Pro Arg Gly Gly Pro Gly Arg Ser Tyr Ala Ala Asp
 20 25 30
 Ala Gly Tyr Ala Pro Ala Thr Pro Ala Ala Ala Gly Ala Glu Ala Gly
 35 40 45
 Lys Ala Thr Thr Glu Glu Gln Lys Leu Ile Glu Asp Ile Asn Val Gly
 50 55 60
 Phe Lys Ala Ala Val Ala Ala Ala Ala Ser Val Pro Ala Ala Asp Lys
 65 70 75 80
 Phe Lys Thr Phe Glu Ala Ala Phe Thr Ser Ser Ser Lys Ala Ala Thr
 85 90 95
 Ala Lys Ala Pro Gly Leu Val Pro Lys Leu Asp Ala Ala Tyr Ser Val
 100 105 110
 Ala Tyr Lys Ala Ala Val Gly Ala Thr Pro Glu Ala Lys Phe Asp Ser
 115 120 125
 Phe Val Ala Ser Leu Thr Glu Ala Leu Arg Val Ile Ala Gly Ala Leu
 130 135 140
 Glu Val His Ala Val Lys Pro Val Thr Glu Glu Pro Gly Met Ala Lys
 145 150 155 160
 Ile Pro Ala Gly Glu Leu Gln Ile Ile Asp Lys Ile Asp Ala Ala Phe
 165 170 175
 Lys Val Ala Ala Thr Ala Ala Ala Thr Ala Pro Ala Asp Asp Lys Phe
 180 185 190
 Thr Val Phe Glu Ala Ala Phe Asn Lys Ala Ile Lys Glu Ser Thr Gly
 195 200 205
 Gly Ala Tyr Asp Thr Tyr Lys Cys Ile Pro Ser Leu Glu Ala Ala Val
 210 215 220
 Lys Gln Ala Tyr Ala Ala Thr Val Ala Ala Ala Pro Gln Val Lys Tyr
 225 230 235 240
 Ala Val Phe Glu Ala Ala Leu Thr Lys Ala Ile Thr Ala Met Ser Glu
 245 250 255
 Val Gln Lys Val Ser Gln Pro Ala Thr Gly Ala Ala Thr Val Ala Ala
 260 265 270
 Gly Ala Ala Thr Thr Ala Ala Gly Ala Ala Ser Gly Ala Ala Thr Val
 275 280 285
 Ala Ala Gly Gly Tyr Lys Val
 290 295

<210> 62

<211> 312

<212> PRT

<213> Phleum pratense

5538-1010seqlisting.txt

<400> 62

Met Ala Val His Gln Tyr Thr Val Ala Leu Phe Leu Ala Val Ala Leu
 1 5 10 15
 Val Ala Gly Pro Ala Gly Ser Tyr Ala Ala Asp Leu Gly Tyr Gly Pro
 20 25 30
 Ala Thr Pro Ala Ala Pro Ala Ala Gly Tyr Thr Pro Ala Thr Pro Ala
 35 40 45
 Ala Pro Ala Gly Ala Glu Pro Ala Gly Lys Ala Thr Thr Glu Glu Gln
 50 55 60
 Lys Leu Ile Glu Lys Ile Asn Ala Gly Phe Lys Ala Ala Leu Ala Ala
 65 70 75 80
 Ala Ala Gly Val Pro Pro Ala Asp Lys Tyr Arg Thr Phe Val Ala Thr
 85 90 95
 Phe Gly Ala Ala Ser Asn Lys Ala Phe Ala Glu Gly Leu Ser Gly Glu
 100 105 110
 Pro Lys Gly Ala Ala Glu Ser Ser Ser Lys Ala Ala Leu Thr Ser Lys
 115 120 125
 Leu Asp Ala Ala Tyr Lys Leu Ala Tyr Lys Thr Ala Glu Gly Ala Thr
 130 135 140
 Pro Glu Ala Lys Tyr Asp Ala Tyr Val Ala Thr Val Ser Glu Ala Leu
 145 150 155 160
 Arg Ile Ile Ala Gly Thr Leu Glu Val His Ala Val Lys Pro Ala Ala
 165 170 175
 Glu Glu Val Lys Val Ile Pro Ala Gly Glu Leu Gln Val Ile Glu Lys
 180 185 190
 Val Asp Ala Ala Phe Lys Val Ala Ala Thr Ala Ala Asn Ala Ala Pro
 195 200 205
 Ala Asn Asp Lys Phe Thr Val Phe Glu Ala Ala Phe Asn Asp Ala Ile
 210 215 220
 Lys Ala Ser Thr Gly Gly Ala Tyr Glu Ser Tyr Lys Phe Ile Pro Ala
 225 230 235 240
 Leu Glu Ala Ala Val Lys Gln Ala Tyr Ala Ala Thr Val Ala Thr Ala
 245 250 255
 Pro Glu Val Lys Tyr Thr Val Phe Glu Thr Ala Leu Lys Lys Ala Ile
 260 265 270
 Thr Ala Met Ser Glu Ala Gln Lys Ala Ala Lys Pro Ala Ala Ala Ala
 275 280 285
 Thr Ala Thr Ala Thr Ala Ala Val Gly Ala Ala Thr Gly Ala Ala Thr
 290 295 300
 Ala Ala Thr Gly Gly Tyr Lys Val
 305 310

<210> 63

<211> 276

<212> PRT

<213> Phleum pratense

<400> 63

Ala Asp Leu Gly Tyr Gly Gly Pro Ala Thr Pro Ala Ala Pro Ala Glu
 1 5 10 15
 Ala Ala Pro Ala Gly Lys Ala Thr Thr Glu Glu Gln Lys Leu Ile Glu
 20 25 30
 Lys Ile Asn Asp Gly Phe Lys Ala Ala Leu Ala Ala Ala Gly Val
 35 40 45
 Pro Pro Ala Asp Lys Tyr Lys Thr Phe Val Ala Thr Phe Gly Ala Ala
 50 55 60
 Ser Asn Lys Ala Phe Ala Glu Gly Leu Ser Ala Glu Pro Lys Gly Ala
 65 70 75 80
 Ala Glu Ser Ser Ser Lys Ala Ala Leu Thr Ser Lys Leu Asp Ala Ala
 85 90 95
 Tyr Lys Leu Ala Tyr Lys Thr Ala Glu Gly Ala Thr Pro Glu Ala Lys
 100 105 110
 Tyr Asp Ala Tyr Val Ala Thr Leu Ser Glu Ala Leu Arg Ile Ile Ala
 115 120 125
 Gly Thr Leu Glu Val His Ala Val Lys Pro Ala Ala Glu Glu Val Lys
 130 135 140
 Val Ile Pro Ala Gly Glu Leu Gln Val Ile Glu Lys Val Asp Ser Ala
 145 150 155 160
 Phe Lys Val Ala Ala Thr Ala Ala Asn Ala Ala Pro Ala Asn Asp Lys
 165 170 175
 Phe Thr Val Phe Glu Ala Ala Phe Asn Asn Ala Ile Lys Ala Ser Thr
 180 185 190
 Gly Gly Ala Tyr Glu Ser Tyr Lys Phe Ile Pro Ala Leu Glu Ala Ala
 195 200 205
 Val Lys Gln Ala Tyr Ala Ala Thr Val Ala Thr Ala Pro Glu Val Lys
 210 215 220
 Tyr Thr Val Phe Glu Thr Ala Leu Lys Lys Ala Phe Thr Ala Met Ser
 225 230 235 240
 Glu Ala Gln Lys Ala Ala Lys Pro Ala Thr Glu Ala Thr Ala Thr Ala
 245 250 255
 Thr Ala Ala Val Gly Ala Ala Thr Gly Ala Ala Thr Ala Ala Thr Gly
 260 265 270

Gly Tyr Lys Val
275

<210> 64

<211> 284

<212> PRT

<213> Phleum pratense

<400> 64

Ala Ala Ala Ala Val Pro Arg Arg Gly Pro Arg Gly Gly Pro Gly Arg
1 5 10 15
Ser Tyr Thr Ala Asp Ala Gly Tyr Ala Pro Ala Thr Pro Ala Ala Ala
20 25 30
Gly Ala Ala Ala Gly Lys Ala Thr Thr Glu Glu Gln Lys Leu Ile Glu
35 40 45
Asp Ile Asn Val Gly Phe Lys Ala Ala Val Ala Ala Ala Ala Ser Val
50 55 60
Pro Ala Ala Asp Lys Phe Lys Thr Phe Glu Ala Ala Phe Thr Ser Ser
65 70 75 80
Ser Lys Ala Ala Ala Lys Ala Pro Gly Leu Val Pro Lys Leu Asp
85 90 95
Ala Ala Tyr Ser Val Ala Tyr Lys Ala Ala Val Gly Ala Thr Pro Glu
100 105 110
Ala Lys Phe Asp Ser Phe Val Ala Ser Leu Thr Glu Ala Leu Arg Val
115 120 125
Ile Ala Gly Ala Leu Glu Val His Ala Val Lys Pro Val Thr Glu Glu
130 135 140
Pro Gly Met Ala Lys Ile Pro Ala Gly Glu Leu Gln Ile Ile Asp Lys
145 150 155 160
Ile Asp Ala Ala Phe Lys Val Ala Ala Thr Ala Ala Ala Thr Ala Pro
165 170 175
Ala Asp Asp Lys Phe Thr Val Phe Glu Ala Ala Phe Asn Lys Ala Ile
180 185 190
Lys Glu Ser Thr Gly Gly Ala Tyr Asp Thr Tyr Lys Cys Ile Pro Ser
195 200 205
Leu Glu Ala Ala Val Lys Gln Ala Tyr Ala Ala Thr Val Ala Ala Ala
210 215 220
Pro Gln Val Lys Tyr Ala Val Phe Glu Ala Ala Leu Thr Lys Ala Ile
225 230 235 240
Thr Ala Met Ser Glu Val Gln Lys Val Ser Gln Pro Ala Thr Gly Ala
245 250 255

Ala Thr Val Ala Ala Gly Ala Ala Thr Thr Ala Ala Gly Ala Ala Ser
 260 265 270

Gly Ala Ala Thr Val Ala Ala Gly Gly Tyr Lys Val
 275 280

<210> 65

<211> 286

<212> PRT

<213> Phleum pratense

<400> 65

Ala Asp Leu Gly Tyr Gly Pro Ala Thr Pro Ala Ala Pro Ala Ala Gly
 1 5 10 15

Tyr Thr Pro Ala Thr Pro Ala Ala Pro Ala Gly Ala Asp Ala Ala Gly
 20 25 30

Lys Ala Thr Thr Glu Glu Gln Lys Leu Ile Glu Lys Ile Asn Ala Gly
 35 40 45

Phe Lys Ala Ala Leu Ala Gly Ala Gly Val Gln Pro Ala Asp Lys Tyr
 50 55 60

Arg Thr Phe Val Ala Thr Phe Gly Pro Ala Ser Asn Lys Ala Phe Ala
 65 70 75 80

Glu Gly Leu Ser Gly Glu Pro Lys Gly Ala Ala Glu Ser Ser Ser Lys
 85 90 95

Ala Ala Leu Thr Ser Lys Leu Asp Ala Ala Tyr Lys Leu Ala Tyr Lys
 100 105 110

Thr Ala Glu Gly Ala Thr Pro Glu Ala Lys Tyr Asp Ala Tyr Val Ala
 115 120 125

Thr Leu Ser Glu Ala Leu Arg Ile Ile Ala Gly Thr Leu Glu Val His
 130 135 140

Ala Val Lys Pro Ala Ala Glu Glu Val Lys Val Ile Pro Ala Gly Glu
 145 150 155 160

Leu Gln Val Ile Glu Lys Val Asp Ala Ala Phe Lys Val Ala Ala Thr
 165 170 175

Ala Ala Asn Ala Ala Pro Ala Asn Asp Lys Phe Thr Val Phe Glu Ala
 180 185 190

Ala Phe Asn Asp Glu Ile Lys Ala Ser Thr Gly Gly Ala Tyr Glu Ser
 195 200 205

Tyr Lys Phe Ile Pro Ala Leu Glu Ala Ala Val Lys Gln Ala Tyr Ala
 210 215 220

Ala Thr Val Ala Thr Ala Pro Glu Val Lys Tyr Thr Val Phe Glu Thr
 225 230 235 240

5538-1010seqlisting.txt

Ala Leu Lys Lys Ala Ile Thr Ala Met Ser Glu Ala Gln Lys Ala Ala
245 250 255

Lys Pro Ala Ala Ala Thr Ala Thr Ala Thr Ala Ala Val Gly Ala
260 265 270

Ala Thr Gly Ala Ala Thr Ala Ala Thr Gly Gly Tyr Lys Val
275 280 285

<210> 66

<211> 281

<212> PRT

<213> Phleum pratense

<400> 66

Ala Val Pro Arg Arg Gly Pro Arg Gly Gly Pro Gly Arg Ser Tyr Ala
1 5 10 15

Ala Asp Ala Gly Tyr Ala Pro Ala Thr Pro Ala Ala Ala Gly Ala Glu
20 25 30

Ala Gly Lys Ala Thr Thr Glu Glu Gln Lys Leu Ile Glu Asp Ile Asn
35 40 45

Val Gly Phe Lys Ala Ala Val Ala Ala Ala Ala Ser Val Pro Ala Gly
50 55 60

Asp Lys Phe Lys Thr Phe Glu Ala Ala Phe Thr Ser Ser Ser Lys Ala
65 70 75 80

Ala Thr Ala Lys Ala Pro Gly Leu Val Pro Lys Leu Asp Ala Ala Tyr
85 90 95

Ser Val Ala Tyr Lys Ala Ala Val Gly Ala Thr Pro Glu Ala Lys Phe
100 105 110

Asp Ser Phe Val Ala Ser Leu Thr Glu Ala Leu Arg Val Ile Ala Gly
115 120 125

Ala Leu Glu Val His Ala Val Lys Pro Val Thr Glu Glu Pro Gly Met
130 135 140

Ala Lys Ile Pro Ala Gly Glu Leu Gln Ile Ile Asp Lys Ile Asp Ala
145 150 155 160

Ala Phe Lys Val Ala Ala Thr Ala Ala Ala Thr Ala Pro Ala Asp Asp
165 170 175

Lys Phe Thr Val Phe Glu Ala Ala Phe Asn Lys Ala Ile Lys Glu Ser
180 185 190

Thr Gly Gly Ala Tyr Asp Thr Tyr Lys Cys Ile Pro Ser Leu Glu Ala
195 200 205

Ala Val Lys Gln Ala Tyr Ala Ala Thr Val Ala Ala Ala Pro Gln Val
210 215 220

5538-1010seqlisting.txt

Lys Tyr Ala Val Phe Glu Ala Ala Leu Thr Lys Ala Ile Thr Ala Met
 225 230 235 240
 Ser Glu Val Gln Lys Val Ser Gln Pro Ala Thr Gly Ala Ala Thr Val
 245 250 255
 Ala Ala Gly Ala Ala Thr Thr Ala Thr Gly Ala Ala Ser Gly Ala Ala
 260 265 270
 Thr Val Ala Ala Gly Gly Tyr Lys Val
 275 280

<210> 67

<211> 280

<212> PRT

<213> Phleum pratense

<400> 67

Met Ala Val Pro Arg Arg Gly Pro Arg Gly Gly Pro Gly Arg Ser Tyr
 1 5 10 15
 Thr Ala Asp Ala Gly Tyr Ala Pro Ala Thr Pro Ala Ala Ala Gly Ala
 20 25 30
 Ala Ala Gly Lys Ala Thr Thr Glu Glu Gln Lys Leu Ile Glu Asp Ile
 35 40 45
 Asn Val Gly Phe Lys Ala Ala Val Ala Ala Arg Gln Arg Pro Ala Ala
 50 55 60
 Asp Lys Phe Lys Thr Phe Glu Ala Ala Ser Pro Arg His Pro Arg Pro
 65 70 75 80
 Leu Arg Gln Gly Ala Gly Leu Val Pro Lys Leu Asp Ala Ala Tyr Ser
 85 90 95
 Val Ala Tyr Lys Ala Ala Val Gly Ala Thr Pro Glu Ala Lys Phe Asp
 100 105 110
 Ser Phe Val Ala Ser Leu Thr Glu Ala Leu Arg Val Ile Ala Gly Ala
 115 120 125
 Leu Glu Val His Ala Val Lys Pro Val Thr Glu Glu Pro Gly Met Ala
 130 135 140
 Lys Ile Pro Ala Gly Glu Leu Gln Ile Ile Asp Lys Ile Asp Ala Ala
 145 150 155 160
 Phe Lys Val Ala Ala Thr Ala Ala Ala Thr Ala Pro Ala Asp Asp Lys
 165 170 175
 Phe Thr Val Phe Glu Ala Ala Phe Asn Lys Ala Ile Lys Glu Ser Thr
 180 185 190
 Gly Gly Ala Tyr Asp Thr Tyr Lys Cys Ile Pro Ser Leu Glu Ala Ala
 195 200 205

5538-1010seqlisting.txt

Val Lys Gln Ala Tyr Ala Ala Thr Val Ala Ala Ala Ala Glu Val Lys
 210 215 220
 Tyr Ala Val Phe Glu Ala Ala Leu Thr Lys Ala Ile Thr Ala Met Ser
 225 230 235 240
 Glu Val Gln Lys Val Ser Gln Pro Ala Thr Gly Ala Ala Thr Val Ala
 245 250 255
 Ala Gly Ala Ala Thr Thr Ala Ala Gly Ala Ala Ser Gly Ala Ala Thr
 260 265 270
 Val Ala Ala Gly Gly Tyr Lys Val
 275 280

<210> 68

<211> 312

<212> PRT

<213> Phleum pratense

<400> 68

Met Ala Val His Gln Tyr Thr Val Ala Leu Phe Leu Ala Val Ala Leu
 1 5 10 15
 Val Ala Gly Pro Ala Ala Ser Tyr Ala Ala Asp Leu Gly Tyr Gly Pro
 20 25 30
 Ala Thr Pro Ala Ala Pro Ala Ala Gly Tyr Thr Pro Ala Thr Pro Ala
 35 40 45
 Ala Pro Ala Glu Ala Ala Pro Ala Gly Lys Ala Thr Thr Glu Glu Gln
 50 55 60
 Lys Leu Ile Glu Lys Ile Asn Ala Gly Phe Lys Ala Ala Leu Ala Ala
 65 70 75 80
 Ala Ala Gly Val Gln Pro Ala Asp Lys Tyr Arg Thr Phe Val Ala Thr
 85 90 95
 Phe Gly Ala Ala Ser Asn Lys Ala Phe Ala Glu Gly Leu Ser Gly Glu
 100 105 110
 Pro Lys Gly Ala Ala Glu Ser Ser Ser Lys Ala Ala Leu Thr Ser Lys
 115 120 125
 Leu Asp Ala Ala Tyr Lys Leu Ala Tyr Lys Thr Ala Glu Gly Ala Thr
 130 135 140
 Pro Glu Ala Lys Tyr Asp Ala Tyr Val Ala Thr Leu Ser Glu Ala Leu
 145 150 155 160
 Arg Ile Ile Ala Gly Thr Leu Glu Val His Ala Val Lys Pro Ala Ala
 165 170 175
 Glu Glu Val Lys Val Ile Pro Ala Gly Glu Leu Gln Val Ile Glu Lys
 180 185 190

5538-1010seqlisting.txt

Val Asp Ala Ala Phe Lys Val Ala Ala Thr Ala Ala Asn Ala Ala Pro
195 200 205
Ala Asn Asp Lys Phe Thr Val Phe Glu Ala Ala Phe Asn Asp Ala Ile
210 215 220
Lys Ala Ser Thr Gly Gly Ala Tyr Glu Ser Tyr Lys Phe Ile Pro Ala
225 230 235 240
Leu Glu Ala Ala Val Lys Gln Ala Tyr Ala Ala Thr Val Ala Thr Ala
245 250 255
Pro Glu Val Lys Tyr Thr Val Phe Glu Thr Ala Leu Lys Lys Ala Ile
260 265 270
Thr Ala Met Ser Glu Ala Gln Lys Ala Ala Lys Pro Ala Ala Ala Ala
275 280 285
Thr Ala Thr Ala Thr Ala Ala Val Gly Ala Ala Thr Gly Ala Ala Thr
290 295 300
Ala Ala Thr Gly Gly Tyr Lys Val
305 310

<210> 69

<211> 257

<212> PRT

<213> Phleum pratense

<400> 69

Glu Ala Pro Ala Gly Lys Ala Thr Thr Glu Glu Gln Lys Leu Ile Glu
1 5 10 15
Lys Ile Asn Ala Gly Phe Lys Ala Ala Leu Ala Arg Arg Leu Gln Pro
20 25 30
Ala Asp Lys Tyr Arg Thr Phe Val Ala Thr Phe Gly Pro Ala Ser Asn
35 40 45
Lys Ala Phe Ala Glu Gly Leu Ser Gly Glu Pro Lys Gly Ala Ala Glu
50 55 60
Ser Ser Ser Lys Ala Ala Leu Thr Ser Lys Leu Asp Ala Ala Tyr Lys
65 70 75 80
Leu Ala Tyr Lys Thr Ala Glu Gly Ala Thr Pro Glu Ala Lys Tyr Asp
85 90 95
Ala Tyr Val Ala Thr Leu Ser Glu Ala Leu Arg Ile Ile Ala Gly Thr
100 105 110
Leu Glu Val His Ala Val Lys Pro Ala Ala Glu Glu Val Lys Val Ile
115 120 125
Pro Ala Ala Glu Leu Gln Val Ile Glu Lys Val Asp Ala Ala Phe Lys
130 135 140

5538-1010seqlisting.txt

Val Ala Ala Thr Ala Ala Asn Ala Ala Pro Ala Asn Asp Lys Phe Thr
 145 150 155 160
 Val Phe Glu Ala Ala Phe Asn Asp Glu Ile Lys Ala Ser Thr Gly Gly
 165 170 175
 Ala Tyr Glu Ser Tyr Lys Phe Ile Pro Ala Leu Glu Ala Ala Val Lys
 180 185 190
 Gln Ala Tyr Ala Ala Thr Val Ala Thr Ala Pro Glu Val Lys Tyr Thr
 195 200 205
 Val Phe Glu Thr Ala Leu Lys Lys Ala Ile Thr Ala Met Ser Glu Ala
 210 215 220
 Gln Lys Ala Ala Lys Pro Pro Pro Leu Pro Pro Pro Pro Gln Pro Pro
 225 230 235 240
 Pro Leu Ala Ala Thr Gly Ala Ala Thr Ala Ala Thr Gly Gly Tyr Lys
 245 250 255

Val

<210> 70

<211> 312

<212> PRT

<213> Phleum pratense

<400> 70

Met Ala Val His Gln Tyr Thr Val Ala Leu Phe Leu Ala Val Ala Leu
 1 5 10 15
 Val Ala Gly Pro Ala Ala Ser Tyr Ala Ala Asp Leu Gly Tyr Gly Pro
 20 25 30
 Ala Thr Pro Ala Ala Pro Ala Ala Gly Tyr Thr Pro Ala Thr Pro Ala
 35 40 45
 Ala Pro Ala Glu Ala Ala Pro Ala Gly Lys Ala Thr Thr Glu Glu Gln
 50 55 60
 Lys Leu Ile Glu Lys Ile Asn Ala Gly Phe Lys Ala Ala Leu Ala Ala
 65 70 75 80
 Ala Ala Gly Val Gln Pro Ala Asp Lys Tyr Arg Thr Phe Val Ala Thr
 85 90 95
 Phe Gly Ala Ala Ser Asn Lys Ala Phe Ala Glu Gly Leu Ser Gly Glu
 100 105 110
 Pro Lys Gly Ala Ala Glu Ser Ser Ser Lys Ala Ala Leu Thr Ser Lys
 115 120 125
 Leu Asp Ala Ala Tyr Lys Leu Ala Tyr Lys Thr Ala Glu Gly Ala Thr
 130 135 140

5538-1010seqlisting.txt

Pro Glu Ala Lys Tyr Asp Ala Tyr Val Ala Thr Leu Ser Glu Ala Leu
 145 150 155 160
 Arg Ile Ile Ala Gly Thr Leu Glu Val His Ala Val Lys Pro Ala Ala
 165 170 175
 Glu Glu Val Lys Val Ile Pro Ala Gly Glu Leu Gln Val Ile Glu Lys
 180 185 190
 Val Asp Ala Ala Phe Lys Val Ala Ala Thr Ala Ala Asn Ala Ala Pro
 195 200 205
 Ala Asn Asp Lys Phe Thr Val Phe Glu Ala Ala Phe Asn Asp Ala Ile
 210 215 220
 Lys Ala Ser Thr Gly Gly Ala Tyr Glu Ser Tyr Lys Phe Ile Pro Ala
 225 230 235 240
 Leu Glu Ala Ala Val Lys Gln Ala Tyr Ala Ala Thr Val Ala Thr Ala
 245 250 255
 Pro Glu Val Lys Tyr Thr Val Phe Glu Thr Ala Leu Lys Lys Ala Ile
 260 265 270
 Thr Ala Met Ser Glu Ala Gln Lys Ala Ala Lys Pro Ala Ala Ala Ala
 275 280 285
 Thr Ala Thr Ala Thr Ala Ala Val Gly Ala Ala Thr Gly Ala Ala Thr
 290 295 300
 Ala Ala Thr Gly Gly Tyr Lys Val
 305 310

<210> 71

<211> 280

<212> PRT

<213> Phleum pratense

<400> 71

Met Ala Val Pro Arg Arg Gly Pro Arg Gly Gly Pro Gly Arg Ser Tyr
 1 5 10 15
 Thr Ala Asp Ala Gly Tyr Ala Pro Ala Thr Pro Ala Ala Ala Gly Ala
 20 25 30
 Ala Ala Gly Lys Ala Thr Thr Glu Gln Lys Leu Ile Glu Asp Ile
 35 40 45
 Asn Val Gly Phe Lys Ala Ala Val Ala Ala Arg Gln Arg Pro Ala Ala
 50 55 60
 Asp Lys Phe Lys Thr Phe Glu Ala Ala Ser Pro Arg His Pro Arg Pro
 65 70 75 80
 Leu Arg Gln Gly Ala Gly Leu Val Pro Lys Leu Asp Ala Ala Tyr Ser
 85 90 95

5538-1010seqlisting.txt

Val Ala Tyr Lys Ala Ala Val Gly Ala Thr Pro Glu Ala Lys Phe Asp
100 105 110
Ser Phe Val Ala Ser Leu Thr Glu Ala Leu Arg Val Ile Ala Gly Ala
115 120 125
Leu Glu Val His Ala Val Lys Pro Val Thr Glu Glu Pro Gly Met Ala
130 135 140
Lys Ile Pro Ala Gly Glu Leu Gln Ile Ile Asp Lys Ile Asp Ala Ala
145 150 155 160
Phe Lys Val Ala Ala Thr Ala Ala Ala Thr Ala Pro Ala Asp Asp Lys
165 170 175
Phe Thr Val Phe Glu Ala Ala Phe Asn Lys Ala Ile Lys Glu Ser Thr
180 185 190
Gly Gly Ala Tyr Asp Thr Tyr Lys Cys Ile Pro Ser Leu Glu Ala Ala
195 200 205
Val Lys Gln Ala Tyr Ala Ala Thr Val Ala Ala Ala Glu Val Lys
210 215 220
Tyr Ala Val Phe Glu Ala Ala Leu Thr Lys Ala Ile Thr Ala Met Ser
225 230 235 240
Glu Val Gln Lys Val Ser Gln Pro Ala Thr Gly Ala Ala Thr Val Ala
245 250 255
Ala Gly Ala Ala Thr Thr Ala Ala Gly Ala Ala Ser Gly Ala Ala Thr
260 265 270
Val Ala Ala Gly Gly Tyr Lys Val
275 280

<210> 72

<211> 285

<212> PRT

<213> Phleum pratense

<400> 72

Ala Asp Leu Gly Tyr Gly Pro Ala Thr Pro Ala Ala Pro Ala Ala Gly
1 5 10 15
Tyr Thr Pro Ala Thr Pro Ala Ala Pro Ala Gly Ala Asp Ala Ala Gly
20 25 30
Lys Ala Thr Thr Glu Glu Gln Lys Leu Ile Glu Lys Ile Asn Ala Gly
35 40 45
Phe Lys Ala Ala Leu Ala Gly Ala Gly Val Gln Pro Ala Asp Lys Tyr
50 55 60
Arg Thr Phe Val Ala Thr Phe Gly Pro Ala Ser Asn Lys Ala Phe Ala
65 70 75 80

5538-1010seqlisting.txt

Glu Gly Leu Ser Gly Glu Pro Lys Gly Ala Ala Glu Ser Ser Ser Lys
85 90
Ala Ala Leu Thr Ser Lys Leu Asp Ala Ala Tyr Lys Leu Ala Tyr Lys
100 105 110
Thr Ala Glu Gly Ala Thr Pro Glu Ala Lys Tyr Asp Ala Tyr Val Ala
115 120 125
Thr Leu Ser Glu Ala Leu Arg Ile Ile Ala Gly Thr Leu Glu Val His
130 135 140
Ala Val Lys Pro Ala Ala Glu Glu Val Lys Val Ile Pro Ala Gly Glu
145 150 155 160
Leu Gln Val Ile Glu Lys Val Asp Ala Ala Phe Lys Val Ala Ala Thr
165 170 175
Ala Ala Asn Ala Ala Pro Ala Asn Asp Lys Phe Thr Val Phe Glu Ala
180 185 190
Ala Phe Asn Asp Glu Ile Lys Ala Ser Thr Gly Gly Ala Tyr Glu Ser
195 200 205
Tyr Lys Phe Ile Pro Ala Leu Glu Ala Ala Val Lys Gln Ala Tyr Ala
210 215 220
Ala Thr Val Ala Thr Ala Pro Glu Val Lys Tyr Thr Val Phe Glu Thr
225 230 235 240
Ala Leu Lys Lys Ala Ile Thr Ala Met Ser Glu Ala Gln Lys Ala Ala
245 250 255
Lys Pro Pro Pro Leu Pro Pro Pro Pro Gln Pro Pro Pro Leu Ala Ala
260 265 270
Thr Gly Ala Ala Thr Ala Ala Thr Gly Gly Tyr Lys Val
275 280 285

<210> 73

<211> 312

<212> PRT

<213> Phleum pratense

<400> 73

Met Ala Val His Gln Tyr Thr Val Ala Leu Phe Leu Ala Val Ala Leu
1 5 10 15
Val Ala Gly Pro Ala Ala Ser Tyr Ala Ala Asp Leu Gly Tyr Gly Pro
20 25 30
Ala Thr Pro Ala Ala Pro Ala Ala Gly Tyr Thr Pro Ala Thr Pro Ala
35 40 45
Ala Pro Ala Glu Ala Ala Pro Ala Gly Lys Ala Thr Thr Glu Glu Gln
50 55 60

5538-1010seqlisting.txt

Lys Leu Ile Glu Lys Ile Asn Ala Gly Phe Lys Ala Ala Leu Ala Ala
 65 70 75 80
 Ala Ala Gly Val Gln Pro Ala Asp Lys Tyr Arg Thr Phe Val Ala Thr
 85 90 95
 Phe Gly Ala Ala Ser Asn Lys Ala Phe Ala Glu Gly Leu Ser Gly Glu
 100 105 110
 Pro Lys Gly Ala Ala Glu Ser Ser Ser Lys Ala Ala Leu Thr Ser Lys
 115 120 125
 Leu Asp Ala Ala Tyr Lys Leu Ala Tyr Lys Thr Ala Glu Gly Ala Thr
 130 135 140
 Pro Glu Ala Lys Tyr Asp Ala Tyr Val Ala Thr Leu Ser Glu Ala Leu
 145 150 155 160
 Arg Ile Ile Ala Gly Thr Leu Glu Val His Ala Val Lys Pro Ala Ala
 165 170 175
 Glu Glu Val Lys Val Ile Pro Ala Gly Glu Leu Gln Val Ile Glu Lys
 180 185 190
 Val Asp Ala Ala Phe Lys Val Ala Ala Thr Ala Ala Asn Ala Ala Pro
 195 200 205
 Ala Asn Asp Lys Phe Thr Val Phe Glu Ala Ala Phe Asn Asp Ala Ile
 210 215 220
 Lys Ala Ser Thr Gly Gly Ala Tyr Glu Ser Tyr Lys Phe Ile Pro Ala
 225 230 235 240
 Leu Glu Ala Ala Val Lys Gln Ala Tyr Ala Ala Thr Val Ala Thr Ala
 245 250 255
 Pro Glu Val Lys Tyr Thr Val Phe Glu Thr Ala Leu Lys Lys Ala Ile
 260 265 270
 Thr Ala Met Ser Glu Ala Gln Lys Ala Ala Lys Pro Ala Ala Ala Ala
 275 280 285
 Thr Ala Thr Ala Thr Ala Ala Val Gly Ala Ala Thr Gly Ala Ala Thr
 290 295 300
 Ala Ala Thr Gly Gly Tyr Lys Val
 305 310

<210> 74

<211> 138

<212> PRT

<213> Phleum pratense

<400> 74

Met Ala Ala His Lys Phe Met Val Ala Met Phe Leu Ala Val Ala Val
 1 5 10 15

5538-1010seqlisting.txt

Val Leu Gly Leu Ala Thr Ser Pro Thr Ala Glu Gly Gly Lys Ala Thr
20 25 30
Thr Glu Glu Gln Lys Leu Ile Glu Asp Val Asn Ala Ser Phe Arg Ala
35 40 45
Ala Met Ala Thr Thr Ala Asn Val Pro Pro Ala Asp Lys Tyr Lys Thr
50 55 60
Phe Glu Ala Ala Phe Thr Val Ser Ser Lys Arg Asn Leu Ala Asp Ala
65 70 75 80
Val Ser Lys Ala Pro Gln Leu Val Pro Lys Leu Asp Glu Val Tyr Asn
85 90 95
Ala Ala Tyr Asn Ala Ala Asp His Ala Ala Pro Glu Asp Lys Tyr Glu
100 105 110
Ala Phe Val Leu His Phe Ser Glu Ala Leu Arg Ile Ile Ala Gly Thr
115 120 125
Pro Glu Val His Ala Val Lys Pro Gly Ala
130 135

<210> 75

<211> 57

<212> PRT

<213> Phleum pratense

<400> 75

Ser Lys Ala Pro Gln Leu Val Pro Lys Leu Asp Glu Val Tyr Asn Ala
1 5 10 15
Ala Tyr Asn Ala Ala Asp His Ala Ala Pro Glu Asp Lys Tyr Glu Ala
20 25 30
Phe Val Leu His Phe Ser Glu Ala Leu His Ile Ile Ala Gly Thr Pro
35 40 45
Glu Val His Ala Val Lys Pro Gly Ala
50 55

<210> 76

<211> 80

<212> PRT

<213> Phleum pratense

<400> 76

Ala Asp Lys Tyr Lys Thr Phe Glu Ala Ala Phe Thr Val Ser Ser Lys
1 5 10 15

5538-1010seqlisting.txt

Arg Asn Leu Ala Asp Ala Val Ser Lys Ala Pro Gln Leu Val Pro Lys
20 25 30

Leu Asp Glu Val Tyr Asn Ala Ala Tyr Asn Ala Ala Asp His Ala Ala
35 40 45

Pro Glu Asp Lys Tyr Glu Ala Phe Val Leu His Phe Ser Glu Ala Leu
50 55 60

His Ile Ile Ala Gly Thr Pro Glu Val His Ala Val Lys Pro Gly Ala
65 70 75 80

<210> 77

<211> 106

<212> PRT

<213> Phleum pratense

<400> 77

Thr Glu Glu Gln Lys Leu Ile Glu Asp Val Asn Ala Ser Phe Arg Ala
1 5 10 15

Ala Met Ala Thr Thr Ala Asn Val Pro Pro Ala Asp Lys Tyr Lys Thr
20 25 30

Leu Glu Ala Ala Phe Thr Val Ser Ser Lys Arg Asn Leu Ala Asp Ala
35 40 45

Val Ser Lys Ala Pro Gln Leu Val Pro Lys Leu Asp Glu Val Tyr Asn
50 55 60

Ala Ala Tyr Asn Ala Ala Asp His Ala Ala Pro Glu Asp Lys Tyr Glu
65 70 75 80

Ala Phe Val Leu His Phe Ser Glu Ala Leu Arg Ile Ile Ala Gly Thr
85 90 95

Pro Glu Val His Ala Val Lys Pro Gly Ala
100 105

<210> 78

<211> 138

<212> PRT

<213> Phleum pratense

<400> 78

Met Ala Ala His Lys Phe Met Val Ala Met Phe Leu Ala Val Ala Val
1 5 10 15

Val Leu Gly Leu Ala Thr Ser Pro Thr Ala Glu Gly Gly Lys Ala Thr
20 25 30

5538-1010seqlisting.txt

Thr Glu Glu Gln Lys Leu Ile Glu Asp Ile Asn Ala Ser Phe Arg Ala
 35 40 45
 Ala Met Ala Thr Thr Ala Asn Val Pro Pro Ala Asp Lys Tyr Lys Thr
 50 55 60
 Phe Glu Ala Ala Phe Thr Val Ser Ser Lys Arg Asn Leu Ala Asp Ala
 65 70 75 80
 Val Ser Lys Ala Pro Gln Leu Val Pro Lys Leu Asp Glu Val Tyr Asn
 85 90 95
 Ala Ala Tyr Asn Ala Ala Asp His Ala Ala Pro Glu Asp Lys Tyr Glu
 100 105 110
 Ala Phe Val Leu His Phe Ser Glu Ala Leu His Ile Ile Ala Gly Thr
 115 120 125
 Pro Glu Val His Ala Val Lys Pro Gly Ala
 130 135

<210> 79

<211> 132

<212> PRT

<213> Phleum pratense

<400> 79

Met Val Ala Met Phe Leu Ala Val Ala Val Val Leu Gly Leu Ala Thr
 1 5 10 15
 Ser Pro Thr Ala Glu Gly Gly Lys Ala Thr Thr Glu Glu Gln Lys Leu
 20 25 30
 Ile Glu Asp Val Asn Ala Ser Phe Arg Ala Ala Met Ala Thr Thr Ala
 35 40 45
 Asn Val Pro Pro Ala Asp Lys Tyr Lys Thr Phe Glu Ala Ala Phe Thr
 50 55 60
 Val Ser Ser Lys Arg Asn Leu Ala Asp Ala Val Ser Lys Ala Pro Gln
 65 70 75 80
 Leu Val Pro Lys Leu Asp Glu Val Tyr Asn Ala Ala Tyr Asn Ala Ala
 85 90 95
 Asp His Ala Ala Pro Glu Asp Lys Tyr Glu Ala Phe Val Leu His Phe
 100 105 110
 Ser Glu Ala Leu Arg Ile Ile Ala Gly Thr Pro Glu Val His Ala Val
 115 120 125
 Lys Pro Gly Ala
 130

<210> 80

<211> 78

5538-1010seqlisting.txt

<212> PRT

<213> Phleum pratense

<400> 80

Met Ala Asp Asp Met Glu Arg Ile Phe Lys Arg Phe Asp Thr Asn Gly
 1 5 10 15
 Asp Gly Lys Ile Ser Leu Ser Glu Leu Thr Asp Ala Leu Arg Thr Leu
 20 25 30
 Gly Ser Thr Ser Ala Asp Glu Val Gln Arg Met Met Ala Glu Ile Asp
 35 40 45
 Thr Asp Gly Asp Gly Phe Ile Asp Phe Asn Glu Phe Ile Ser Phe Cys
 50 55 60
 Asn Ala Asn Pro Gly Leu Met Lys Asp Val Ala Lys Val Phe
 65 70 75

<210> 81

<211> 131

<212> PRT

<213> Phleum pratense

<400> 81

Met Ser Trp Gln Thr Tyr Val Asp Glu His Leu Met Cys Glu Ile Glu
 1 5 10 15
 Gly His His Leu Ala Ser Ala Ala Ile Leu Gly His Asp Gly Thr Val
 20 25 30
 Trp Ala Gln Ser Ala Asp Phe Pro Gln Phe Lys Pro Glu Glu Ile Thr
 35 40 45
 Gly Ile Met Lys Asp Phe Asp Glu Pro Gly His Leu Ala Pro Thr Gly
 50 55 60
 Met Phe Val Ala Gly Ala Lys Tyr Met Val Ile Gln Gly Glu Pro Gly
 65 70 75 80
 Arg Val Ile Arg Gly Lys Lys Gly Ala Gly Gly Ile Thr Ile Lys Lys
 85 90 95
 Thr Gly Gln Ala Leu Val Val Gly Ile Tyr Asp Glu Pro Met Thr Pro
 100 105 110
 Gly Gln Cys Asn Met Val Val Glu Arg Leu Gly Asp Tyr Leu Val Glu
 115 120 125
 Gln Gly Met
 130

<210> 82

<211> 227

<212> PRT

<213> *Vespula vulgaris*

<400> 82

Met Glu Ile Ser Gly Leu Val Tyr Leu Ile Ile Ile Val Thr Ile Ile
 1 5 10 15
 Asp Leu Pro Tyr Gly Lys Ala Asn Asn Tyr Cys Lys Ile Lys Cys Leu
 20 25 30
 Lys Gly Gly Val His Thr Ala Cys Lys Tyr Gly Ser Leu Lys Pro Asn
 35 40 45
 Cys Gly Asn Lys Val Val Val Ser Tyr Gly Leu Thr Lys Gln Glu Lys
 50 55 60
 Gln Asp Ile Leu Lys Glu His Asn Asp Phe Arg Gln Lys Ile Ala Arg
 65 70 75 80
 Gly Leu Glu Thr Arg Gly Asn Pro Gly Pro Gln Pro Pro Ala Lys Asn
 85 90 95
 Met Lys Asn Leu Val Trp Asn Asp Glu Leu Ala Tyr Val Ala Gln Val
 100 105 110
 Trp Ala Asn Gln Cys Gln Tyr Gly His Asp Thr Cys Arg Asp Val Ala
 115 120 125
 Lys Tyr Gln Val Gly Gln Asn Val Ala Leu Thr Gly Ser Thr Ala Ala
 130 135 140
 Lys Tyr Asp Asp Pro Val Lys Leu Val Lys Met Trp Glu Asp Glu Val
 145 150 155 160
 Lys Asp Tyr Asn Pro Lys Lys Lys Phe Ser Gly Asn Asp Phe Leu Lys
 165 170 175
 Thr Gly His Tyr Thr Gln Met Val Trp Ala Asn Thr Lys Glu Val Gly
 180 185 190
 Cys Gly Ser Ile Lys Tyr Ile Gln Glu Lys Trp His Lys His Tyr Leu
 195 200 205
 Val Cys Asn Tyr Gly Pro Ser Gly Asn Phe Met Asn Glu Glu Leu Tyr
 210 215 220

Gln Thr Lys
 225

<210> 83

<211> 300

<212> PRT

<213> *Vesputula maculifrons*

<400> 83

Gly Pro Lys Cys Pro Phe Asn Ser Asp Thr Val Ser Ile Ile Ile Glu
 1 5 10 15
 Thr Arg Glu Asn Arg Asn Arg Asp Leu Tyr Thr Leu Gln Thr Leu Gln
 20 25 30
 Asn His Pro Glu Phe Lys Lys Lys Thr Ile Thr Arg Pro Val Val Phe
 35 40 45
 Ile Thr His Gly Phe Thr Ser Ser Ala Ser Glu Lys Asn Phe Ile Asn
 50 55 60
 Leu Ala Lys Ala Leu Val Asp Lys Asp Asn Tyr Met Val Ile Ser Ile
 65 70 75 80
 Asp Trp Gln Thr Ala Ala Cys Thr Asn Glu Tyr Pro Gly Leu Lys Tyr
 85 90 95
 Ala Tyr Tyr Pro Thr Ala Ala Ser Asn Thr Arg Leu Val Gly Gln Tyr
 100 105 110
 Ile Ala Thr Ile Thr Gln Lys Leu Val Lys Asp Tyr Lys Ile Ser Met
 115 120 125
 Ala Asn Ile Arg Leu Ile Gly His Ser Leu Gly Ala His Val Ser Gly
 130 135 140
 Phe Ala Gly Lys Arg Val Gln Glu Leu Lys Leu Gly Lys Tyr Ser Glu
 145 150 155 160
 Ile Ile Gly Leu Asp Pro Ala Arg Pro Ser Phe Asp Ser Asn His Cys
 165 170 175
 Ser Glu Arg Leu Cys Glu Thr Asp Ala Glu Tyr Val Gln Ile Ile His
 180 185 190
 Thr Ser Asn Tyr Leu Gly Thr Glu Lys Ile Leu Gly Thr Val Asp Phe
 195 200 205
 Tyr Met Asn Asn Gly Lys Asn Asn Pro Gly Cys Gly Arg Phe Phe Ser
 210 215 220
 Glu Val Cys Ser His Thr Arg Ala Val Ile Tyr Met Ala Glu Cys Ile
 225 230 235 240
 Lys His Glu Cys Cys Leu Ile Gly Ile Pro Arg Ser Lys Ser Ser Gln
 245 250 255
 Pro Ile Ser Arg Cys Thr Lys Gln Glu Cys Val Cys Val Gly Leu Asn
 260 265 270
 Ala Lys Lys Tyr Pro Ser Arg Gly Ser Phe Tyr Val Pro Val Glu Ser
 275 280 285
 Thr Ala Pro Phe Cys Asn Asn Lys Gly Lys Ile Ile
 290 295 300

<210> 84

<211> 336

<212> PRT

<213> *Vespula vulgaris*

<400> 84

Met Glu Glu Asn Met Asn Leu Lys Tyr Leu Leu Leu Phe Val Tyr Phe
 1 5 10 15
 Val Gln Val Leu Asn Cys Cys Tyr Gly His Gly Asp Pro Leu Ser Tyr
 20 25 30
 Glu Leu Asp Arg Gly Pro Lys Cys Pro Phe Asn Ser Asp Thr Val Ser
 35 40 45
 Ile Ile Ile Glu Thr Arg Glu Asn Arg Asn Arg Asp Leu Tyr Thr Leu
 50 55 60
 Gln Thr Leu Gln Asn His Pro Glu Phe Lys Lys Lys Thr Ile Thr Arg
 65 70 75 80
 Pro Val Val Phe Ile Thr His Gly Phe Thr Ser Ser Ala Ser Glu Thr
 85 90 95
 Asn Phe Ile Asn Leu Ala Lys Ala Leu Val Asp Lys Asp Asn Tyr Met
 100 105 110
 Val Ile Ser Ile Asp Trp Gln Thr Ala Ala Cys Thr Asn Glu Ala Ala
 115 120 125
 Gly Leu Lys Tyr Leu Tyr Tyr Pro Thr Ala Ala Arg Asn Thr Arg Leu
 130 135 140
 Val Gly Gln Tyr Ile Ala Thr Ile Thr Gln Lys Leu Val Lys His Tyr
 145 150 155 160
 Lys Ile Ser Met Ala Asn Ile Arg Leu Ile Gly His Ser Leu Gly Ala
 165 170 175
 His Ala Ser Gly Phe Ala Gly Lys Lys Val Gln Glu Leu Lys Leu Gly
 180 185 190
 Lys Tyr Ser Glu Ile Ile Gly Leu Asp Pro Ala Arg Pro Ser Phe Asp
 195 200 205
 Ser Asn His Cys Ser Glu Arg Leu Cys Glu Thr Asp Ala Glu Tyr Val
 210 215 220
 Gln Ile Ile His Thr Ser Asn Tyr Leu Gly Thr Glu Lys Thr Leu Gly
 225 230 235 240
 Thr Val Asp Phe Tyr Met Asn Asn Gly Lys Asn Gln Pro Gly Cys Gly
 245 250 255
 Arg Phe Phe Ser Glu Val Cys Ser His Ser Arg Ala Val Ile Tyr Met
 260 265 270

Ala Glu Cys Ile Lys His Glu Cys Cys Leu Ile Gly Ile Pro Lys Ser
 275 280 285
 Lys Ser Ser Gln Pro Ile Ser Ser Cys Thr Lys Gln Glu Cys Val Cys
 290 295 300
 Val Gly Leu Asn Ala Lys Lys Tyr Pro Ser Arg Gly Ser Phe Tyr Val
 305 310 315 320
 Pro Val Glu Ser Thr Ala Pro Phe Cys Asn Asn Lys Gly Lys Ile Ile
 325 330 335

<210> 85

<211> 331

<212> PRT

<213> *Vespula vulgaris*

<400> 85

Ser Glu Arg Pro Lys Arg Val Phe Asn Ile Tyr Trp Asn Val Pro Thr
 1 5 10 15
 Phe Met Cys His Gln Tyr Asp Leu Tyr Phe Asp Glu Val Thr Asn Phe
 20 25 30
 Asn Ile Lys Arg Asn Ser Lys Asp Asp Phe Gln Gly Asp Lys Ile Ala
 35 40 45
 Ile Phe Tyr Asp Pro Gly Glu Phe Pro Ala Leu Leu Ser Leu Lys Asp
 50 55 60
 Gly Lys Tyr Lys Lys Arg Asn Gly Gly Val Pro Gln Glu Gly Asn Ile
 65 70 75 80
 Thr Ile His Leu Gln Lys Phe Ile Glu Asn Leu Asp Lys Ile Tyr Pro
 85 90 95
 Asn Arg Asn Phe Ser Gly Ile Gly Val Ile Asp Phe Glu Arg Trp Arg
 100 105 110
 Pro Ile Phe Arg Gln Asn Trp Gly Asn Met Lys Ile His Lys Asn Phe
 115 120 125
 Ser Ile Asp Leu Val Arg Asn Glu His Pro Thr Trp Asn Lys Lys Met
 130 135 140
 Ile Glu Leu Glu Ala Ser Lys Arg Phe Glu Lys Tyr Ala Arg Phe Phe
 145 150 155 160
 Met Glu Glu Thr Leu Lys Leu Ala Lys Lys Thr Arg Lys Gln Ala Asp
 165 170 175
 Trp Gly Tyr Tyr Gly Tyr Pro Tyr Cys Phe Asn Met Ser Pro Asn Asn
 180 185 190
 Leu Val Pro Glu Cys Asp Val Thr Ala Met His Glu Asn Asp Lys Met
 195 200 205

5538-1010seqlisting.txt

Ser Trp Leu Phe Asn Asn Gln Asn Val Leu Leu Pro Ser Val Tyr Val
 210 215 220
 Arg Gln Glu Leu Thr Pro Asp Gln Arg Ile Gly Leu Val Gln Gly Arg
 225 230 235 240
 Val Lys Glu Ala Val Arg Ile Ser Asn Asn Leu Lys His Ser Pro Lys
 245 250 255
 Val Leu Ser Tyr Trp Trp Tyr Val Tyr Gln Asp Glu Thr Asn Thr Phe
 260 265 270
 Leu Thr Glu Thr Asp Val Lys Lys Thr Phe Gln Glu Ile Val Ile Asn
 275 280 285
 Gly Gly Asp Gly Ile Ile Ile Trp Gly Ser Ser Ser Asp Val Asn Ser
 290 295 300
 Leu Ser Lys Cys Lys Arg Leu Gln Asp Tyr Leu Leu Thr Val Leu Gly
 305 310 315 320
 Pro Ile Ala Ile Asn Val Thr Glu Ala Val Asn
 325 330

<210> 86

<211> 206

<212> PRT

<213> *Vespula vidua*

<400> 86

Lys Val Asn Tyr Cys Lys Ile Lys Cys Leu Lys Gly Gly Val His Thr
 1 5 10 15
 Ala Cys Lys Tyr Gly Thr Ser Thr Lys Pro Asn Cys Gly Lys Met Val
 20 25 30
 Val Lys Ala Tyr Gly Leu Thr Glu Ala Glu Lys Gln Glu Ile Leu Lys
 35 40 45
 Val His Asn Asp Phe Arg Gln Lys Val Ala Lys Gly Leu Glu Thr Arg
 50 55 60
 Gly Asn Pro Gly Pro Gln Pro Pro Ala Lys Asn Met Asn Asn Leu Val
 65 70 75 80
 Trp Asn Asp Glu Leu Ala Asn Ile Ala Gln Val Trp Ala Ser Gln Cys
 85 90 95
 Asn Tyr Gly His Asp Thr Cys Lys Asp Thr Glu Lys Tyr Pro Val Gly
 100 105 110
 Gln Asn Ile Ala Lys Arg Ser Thr Thr Ala Ala Leu Phe Asp Ser Pro
 115 120 125
 Gly Lys Leu Val Lys Met Trp Glu Asn Glu Val Lys Asp Phe Asn Pro
 130 135 140

5538-1010seqlisting.txt

Asn Ile Glu Trp Ser Lys Asn Asn Leu Lys Lys Thr Gly His Tyr Thr
 145 150 155 160
 Gln Met Val Trp Ala Lys Thr Lys Glu Ile Gly Cys Gly Ser Val Lys
 165 170 175
 Tyr Val Lys Asp Glu Trp Tyr Thr His Tyr Leu Val Cys Asn Tyr Gly
 180 185 190
 Pro Ser Gly Asn Phe Arg Asn Glu Lys Leu Tyr Glu Lys Lys
 195 200 205

<210> 87

<211> 160

<212> PRT

<213> Betula pendula

<400> 87

Met Gly Val Phe Asn Tyr Glu Thr Glu Thr Thr Ser Val Ile Pro Ala
 1 5 10 15
 Ala Arg Leu Phe Lys Ala Phe Ile Leu Asp Gly Asp Asn Leu Phe Pro
 20 25 30
 Lys Val Ala Pro Gln Ala Ile Ser Ser Val Glu Asn Ile Glu Gly Asn
 35 40 45
 Gly Gly Pro Gly Thr Ile Lys Lys Ile Ser Phe Pro Glu Gly Phe Pro
 50 55 60
 Phe Lys Tyr Val Lys Asp Arg Val Asp Glu Val Asp His Thr Asn Phe
 65 70 75 80
 Lys Tyr Asn Tyr Ser Val Ile Glu Gly Gly Pro Ile Gly Asp Thr Leu
 85 90 95
 Glu Lys Ile Ser Asn Glu Ile Lys Ile Val Ala Thr Pro Asp Gly Gly
 100 105 110
 Ser Ile Leu Lys Ile Ser Asn Lys Tyr His Thr Lys Gly Asp His Glu
 115 120 125
 Val Lys Ala Glu Gln Val Lys Ala Ser Lys Glu Met Gly Glu Thr Leu
 130 135 140
 Leu Arg Ala Val Glu Ser Tyr Leu Leu Ala His Ser Asp Ala Tyr Asn
 145 150 155 160

<210> 88

<211> 133

<212> PRT

<213> Betula pendula

5538-1010seqlisting.txt

<400> 88

Met Ser Trp Gln Thr Tyr Val Asp Glu His Leu Met Cys Asp Ile Asp
 1 5 10 15
 Gly Gln Ala Ser Asn Ser Leu Ala Ser Ala Ile Val Gly His Asp Gly
 20 25 30
 Ser Val Trp Ala Gln Ser Ser Ser Phe Pro Gln Phe Lys Pro Gln Glu
 35 40 45
 Ile Thr Gly Ile Met Lys Asp Phe Glu Glu Pro Gly His Leu Ala Pro
 50 55 60
 Thr Gly Leu His Leu Gly Gly Ile Lys Tyr Met Val Ile Gln Gly Glu
 65 70 75 80
 Ala Gly Ala Val Ile Arg Gly Lys Lys Gly Ser Gly Gly Ile Thr Ile
 85 90 95
 Lys Lys Thr Gly Gln Ala Leu Val Phe Gly Ile Tyr Glu Glu Pro Val
 100 105 110
 Thr Pro Gly Gln Cys Asn Met Val Val Glu Arg Leu Gly Asp Tyr Leu
 115 120 125
 Ile Asp Gln Gly Leu
 130

<210> 89

<211> 205

<212> PRT

<213> Betula pendula

<400> 89

Met Pro Cys Ser Thr Glu Ala Met Glu Lys Ala Gly His Gly His Ala
 1 5 10 15
 Ser Thr Pro Arg Lys Arg Ser Leu Ser Asn Ser Ser Phe Arg Leu Arg
 20 25 30
 Ser Glu Ser Leu Asn Thr Leu Arg Leu Arg Arg Ile Phe Asp Leu Phe
 35 40 45
 Asp Lys Asn Ser Asp Gly Ile Ile Thr Val Asp Glu Leu Ser Arg Ala
 50 55 60
 Leu Asn Leu Leu Gly Leu Glu Thr Asp Leu Ser Glu Leu Glu Ser Thr
 65 70 75 80
 Val Lys Ser Phe Thr Arg Glu Gly Asn Ile Gly Leu Gln Phe Glu Asp
 85 90 95
 Phe Ile Ser Leu His Gln Ser Leu Asn Asp Ser Tyr Phe Ala Tyr Gly
 100 105 110

5538-1010seqlisting.txt

Gly Glu Asp Glu Asp Asp Asn Glu Glu Asp Met Arg Lys Ser Ile Leu
 115 120
 Ser Gln Glu Glu Ala Asp Ser Phe Gly Gly Phe Lys Val Phe Asp Glu
 130 135 140
 Asp Gly Asp Gly Tyr Ile Ser Ala Arg Glu Leu Gln Met Val Leu Gly
 145 150 155 160
 Lys Leu Gly Phe Ser Glu Gly Ser Glu Ile Asp Arg Val Glu Lys Met
 165 170 175
 Ile Val Ser Val Asp Ser Asn Arg Asp Gly Arg Val Asp Phe Phe Glu
 180 185 190
 Phe Lys Asp Met Met Arg Ser Val Leu Val Arg Ser Ser
 195 200 205

<210> 90

<211> 85

<212> PRT

<213> Betula pendula

<400> 90

Met Ala Asp Asp His Pro Gln Asp Lys Ala Glu Arg Glu Arg Ile Phe
 1 5 10 15
 Lys Arg Phe Asp Ala Asn Gly Asp Gly Lys Ile Ser Ala Ala Glu Leu
 20 25 30
 Gly Glu Ala Leu Lys Thr Leu Gly Ser Ile Thr Pro Asp Glu Val Lys
 35 40 45
 His Met Met Ala Glu Ile Asp Thr Asp Gly Asp Gly Phe Ile Ser Phe
 50 55 60
 Gln Glu Phe Thr Asp Phe Gly Arg Ala Asn Arg Gly Leu Leu Lys Asp
 65 70 75 80
 Val Ala Lys Ile Phe
 85

<210> 91

<211> 24

<212> PRT

<213> Quercus alba

<220>

<221> misc_feature

<223> X is unknown amino acid

<400> 91

Gly Val Phe Thr Xaa Glu Ser Gln Glu Thr Ser Val Ile Ala Pro Ala
 1 5 10 15

Xaa Leu Phe Lys Ala Leu Phe Leu
 20

<210> 92

<211> 40

<212> PRT

<213> Carpinus betulus

<220>

<221> misc_feature

<223> X is unknown amino acid

<400> 92

Gly Val Phe Asn Tyr Glu Ala Glu Thr Pro Ser Val Ile Pro Ala Ala
 1 5 10 15

Arg Leu Phe Lys Ser Tyr Val Leu Asp Gly Asp Lys Leu Ile Pro Lys
 20 25 30

Val Ala Pro Gln Ala Ile Xaa Lys
 35 40

<210> 93

<211> 44

<212> PRT

<213> Alnus glutinosa

<400> 93

Gly Val Phe Asn Tyr Glu Ala Glu Thr Pro Ser Val Ile Pro Ala Ala
 1 5 10 15

Arg Leu Phe Lys Ala Phe Ile Leu Asp Gly Asp Lys Leu Leu Pro Lys
 20 25 30

Val Ala Pro Glu Ala Val Ser Ser Val Glu Asn Ile
 35 40

<210> 94

<211> 110

<212> PRT

<213> Betula pendula

<400> 94

Val Gln Cys Met Gln Val Trp Pro Pro Leu Gly Leu Lys Lys Phe Glu
 1 5 10 15
 Thr Leu Ser Tyr Leu Pro Pro Leu Ser Ser Glu Gln Leu Ala Lys Glu
 20 25 30
 Val Asp Tyr Leu Leu Arg Lys Asn Leu Ile Pro Cys Leu Glu Phe Glu
 35 40 45
 Leu Glu His Gly Phe Val Tyr Arg Glu His Asn Arg Ser Pro Gly Tyr
 50 55 60
 Tyr Asp Gly Arg Tyr Trp Thr Met Trp Lys Leu Pro Met Phe Gly Cys
 65 70 75 80
 Asn Asp Ser Ser Gln Val Leu Lys Glu Leu Glu Glu Cys Lys Lys Ala
 85 90 95
 Tyr Pro Ser Ala Phe Ile Arg Ile Ile Gly Phe Asp Asp Lys
 100 105 110

<210> 95

<211> 626

<212> PRT

<213> Arachis hypogaea

<400> 95

Met Arg Gly Arg Val Ser Pro Leu Met Leu Leu Leu Gly Ile Leu Val
 1 5 10 15
 Leu Ala Ser Val Ser Ala Thr His Ala Lys Ser Ser Pro Tyr Gln Lys
 20 25 30
 Lys Thr Glu Asn Pro Cys Ala Gln Arg Cys Leu Gln Ser Cys Gln Gln
 35 40 45
 Glu Pro Asp Asp Leu Lys Gln Lys Ala Cys Glu Ser Arg Cys Thr Lys
 50 55 60
 Leu Glu Tyr Asp Pro Arg Cys Val Tyr Asp Pro Arg Gly His Thr Gly
 65 70 75 80
 Thr Thr Asn Gln Arg Ser Pro Pro Gly Glu Arg Thr Arg Gly Arg Gln
 85 90 95
 Pro Gly Asp Tyr Asp Asp Asp Arg Arg Gln Pro Arg Arg Glu Glu Gly
 100 105 110

5538-1010seqlisting.txt

Gly Arg Trp Gly Pro Ala Gly Pro Arg Glu Arg Glu Arg Glu Glu Asp
 115 120 125
 Trp Arg Gln Pro Arg Glu Asp Trp Arg Arg Pro Ser His Gln Gln Pro
 130 135 140
 Arg Lys Ile Arg Pro Glu Gly Arg Glu Gly Glu Gln Glu Trp Gly Thr
 145 150 155 160
 Pro Gly Ser His Val Arg Glu Glu Thr Ser Arg Asn Asn Pro Phe Tyr
 165 170 175
 Phe Pro Ser Arg Arg Phe Ser Thr Arg Tyr Gly Asn Gln Asn Gly Arg
 180 185 190
 Ile Arg Val Leu Gln Arg Phe Asp Gln Arg Ser Arg Gln Phe Gln Asn
 195 200 205
 Leu Gln Asn His Arg Ile Val Gln Ile Glu Ala Lys Pro Asn Thr Leu
 210 215 220
 Val Leu Pro Lys His Ala Asp Ala Asp Asn Ile Leu Val Ile Gln Gln
 225 230 235 240
 Gly Gln Ala Thr Val Thr Val Ala Asn Gly Asn Asn Arg Lys Ser Phe
 245 250 255
 Asn Leu Asp Glu Gly His Ala Leu Arg Ile Pro Ser Gly Phe Ile Ser
 260 265 270
 Tyr Ile Leu Asn Arg His Asp Asn Gln Asn Leu Arg Val Ala Lys Ile
 275 280 285
 Ser Met Pro Val Asn Thr Pro Gly Gln Phe Glu Asp Phe Phe Pro Ala
 290 295 300
 Ser Ser Arg Asp Gln Ser Ser Tyr Leu Gln Gly Phe Ser Arg Asn Thr
 305 310 315 320
 Leu Glu Ala Ala Phe Asn Ala Glu Phe Asn Glu Ile Arg Arg Val Leu
 325 330 335
 Leu Glu Glu Asn Ala Gly Gly Glu Gln Glu Glu Arg Gly Gln Arg Arg
 340 345 350
 Trp Ser Thr Arg Ser Ser Glu Asn Asn Glu Gly Val Ile Val Lys Val
 355 360 365
 Ser Lys Glu His Val Glu Glu Leu Thr Lys His Ala Lys Ser Val Ser
 370 375 380
 Lys Lys Gly Ser Glu Glu Glu Gly Asp Ile Thr Asn Pro Ile Asn Leu
 385 390 395 400
 Arg Glu Gly Glu Pro Asp Leu Ser Asn Asn Phe Gly Lys Leu Phe Glu
 405 410 415
 Val Lys Pro Asp Lys Lys Asn Pro Gln Leu Gln Asp Leu Asp Met Met
 420 425 430
 Leu Thr Cys Val Glu Ile Lys Glu Gly Ala Leu Met Leu Pro His Phe
 435 440 445

5538-1010seqlisting.txt

Asn Ser Lys Ala Met Val Ile Val Val Val Asn Lys Gly Thr Gly Asn
 450 455 460
 Leu Glu Leu Val Ala Val Arg Lys Glu Gln Gln Gln Arg Gly Arg Arg
 465 470 475 480
 Glu Glu Glu Glu Asp Glu Asp Glu Glu Glu Glu Gly Ser Asn Arg Glu
 485 490 495
 Val Arg Arg Tyr Thr Ala Arg Leu Lys Glu Gly Asp Val Phe Ile Met
 500 505 510
 Pro Ala Ala His Pro Val Ala Ile Asn Ala Ser Ser Glu Leu His Leu
 515 520 525
 Leu Gly Phe Gly Ile Asn Ala Glu Asn Asn His Arg Ile Phe Leu Ala
 530 535 540
 Gly Asp Lys Asp Asn Val Ile Asp Gln Ile Glu Lys Gln Ala Lys Asp
 545 550 555 560
 Leu Ala Phe Pro Gly Ser Gly Glu Gln Val Glu Lys Leu Ile Lys Asn
 565 570 575
 Gln Lys Glu Ser His Phe Val Ser Ala Arg Pro Gln Ser Gln Ser Gln
 580 585 590
 Ser Pro Ser Ser Pro Glu Lys Glu Ser Pro Glu Lys Glu Asp Gln Glu
 595 600 605
 Glu Glu Asn Gln Gly Gly Lys Gly Pro Leu Leu Ser Ile Leu Lys Ala
 610 615 620

Phe Asn
 625

<210> 96

<211> 392

<212> PRT

<213> Ambrosia artemisiifolia

<400> 96

Met Gly Ile Lys His Cys Cys Tyr Ile Leu Tyr Phe Thr Leu Ala Leu
 1 5 10 15
 Val Thr Leu Leu Gln Pro Val Arg Ser Ala Glu Asp Leu Gln Gln Ile
 20 25 30
 Leu Pro Ser Ala Asn Glu Thr Arg Ser Leu Thr Thr Cys Gly Thr Tyr
 35 40 45
 Asn Ile Ile Asp Gly Cys Trp Arg Gly Lys Ala Asp Trp Ala Glu Asn
 50 55 60
 Arg Lys Ala Leu Ala Asp Cys Ala Gln Gly Phe Ala Lys Gly Thr Ile
 65 70 75 80

5538-1010seqlisting.txt

Gly Gly Lys Asp Gly Asp Ile Tyr Thr Val Thr Ser Glu Leu Asp Asp
85 90 95
Asp Val Ala Asn Pro Lys Glu Gly Thr Leu Arg Phe Gly Ala Ala Gln
100 105 110
Asn Arg Pro Leu Trp Ile Ile Phe Ala Arg Asp Met Val Ile Arg Leu
115 120 125
Asp Arg Glu Leu Ala Ile Asn Asn Asp Lys Thr Ile Asp Gly Arg Gly
130 135 140
Ala Lys Val Glu Ile Ile Asn Ala Gly Phe Ala Ile Tyr Asn Val Lys
145 150 155 160
Asn Ile Ile Ile His Asn Ile Ile Met His Asp Ile Val Val Asn Pro
165 170 175
Gly Gly Leu Ile Lys Ser His Asp Gly Pro Pro Val Pro Arg Lys Gly
180 185 190
Ser Asp Gly Asp Ala Ile Gly Ile Ser Gly Gly Ser Gln Ile Trp Ile
195 200 205
Asp His Cys Ser Leu Ser Lys Ala Val Asp Gly Leu Ile Asp Ala Lys
210 215 220
His Gly Ser Thr His Phe Thr Val Ser Asn Cys Leu Phe Thr Gln His
225 230 235 240
Gln Tyr Leu Leu Leu Phe Trp Asp Phe Asp Glu Arg Gly Met Leu Cys
245 250 255
Thr Val Ala Phe Asn Lys Phe Thr Asp Asn Val Asp Gln Arg Met Pro
260 265 270
Asn Leu Arg His Gly Phe Val Gln Val Val Asn Asn Asn Tyr Glu Arg
275 280 285
Trp Gly Ser Tyr Ala Leu Gly Gly Ser Ala Gly Pro Thr Ile Leu Ser
290 295 300
Gln Gly Asn Arg Phe Leu Ala Ser Asp Ile Lys Lys Glu Val Val Gly
305 310 315 320
Arg Tyr Gly Glu Ser Ala Met Ser Glu Ser Ile Asn Trp Asn Trp Arg
325 330 335
Ser Tyr Met Asp Val Phe Glu Asn Gly Ala Ile Phe Val Pro Ser Gly
340 345 350
Val Asp Pro Val Leu Thr Pro Glu Gln Asn Ala Gly Met Ile Pro Ala
355 360 365
Glu Pro Gly Glu Ala Val Leu Arg Leu Thr Ser Ser Ala Gly Val Leu
370 375 380
Ser Cys Gln Pro Gly Ala Pro Cys
385 390

<210> 97

<211> 397

<212> PRT

<213> *Ambrosia artemisiifolia*

<400> 97

Met Gly Ile Lys His Cys Cys Tyr Ile Leu Tyr Phe Thr Leu Ala Leu
 1 5 10 15
 Val Thr Leu Val Gln Ala Gly Arg Leu Gly Glu Glu Val Asp Ile Leu
 20 25 30
 Pro Ser Pro Asn Asp Thr Arg Arg Ser Leu Gln Gly Cys Glu Ala His
 35 40 45
 Asn Ile Ile Asp Lys Cys Trp Arg Cys Lys Pro Asp Trp Ala Glu Asn
 50 55 60
 Arg Gln Ala Leu Gly Asn Cys Ala Gln Gly Phe Gly Lys Ala Thr His
 65 70 75 80
 Gly Gly Lys Trp Gly Asp Ile Tyr Met Val Thr Ser Asp Gln Asp Asp
 85 90 95
 Asp Val Val Asn Pro Lys Glu Gly Thr Leu Arg Phe Gly Ala Thr Gln
 100 105 110
 Asp Arg Pro Leu Trp Ile Ile Phe Gln Arg Asp Met Ile Ile Tyr Leu
 115 120 125
 Gln Gln Glu Met Val Val Thr Ser Asp Lys Thr Ile Asp Gly Arg Gly
 130 135 140
 Ala Lys Val Glu Leu Val Tyr Gly Gly Ile Thr Leu Met Asn Val Lys
 145 150 155 160
 Asn Val Ile Ile His Asn Ile Asp Ile His Asp Val Arg Val Leu Pro
 165 170 175
 Gly Gly Arg Ile Lys Ser Asn Gly Gly Pro Ala Ile Pro Arg His Gln
 180 185 190
 Ser Asp Gly Asp Ala Ile His Val Thr Gly Ser Ser Asp Ile Trp Ile
 195 200 205
 Asp His Cys Thr Leu Ser Lys Ser Phe Asp Gly Leu Val Asp Val Asn
 210 215 220
 Trp Gly Ser Thr Gly Val Thr Ile Ser Asn Cys Lys Phe Thr His His
 225 230 235 240
 Glu Lys Ala Val Leu Leu Gly Ala Ser Asp Thr His Phe Gln Asp Leu
 245 250 255
 Lys Met His Val Thr Leu Ala Tyr Asn Ile Phe Thr Asn Thr Val His
 260 265 270
 Glu Arg Met Pro Arg Cys Arg Phe Gly Phe Phe Gln Ile Val Asn Asn
 275 280 285

5538-1010seqlisting.txt

Phe Tyr Asp Arg Trp Asp Lys Tyr Ala Ile Gly Gly Ser Ser Asn Pro
 290 295 300
 Thr Ile Leu Ser Gln Gly Asn Lys Phe Val Ala Pro Asp Phe Ile Tyr
 305 310 315 320
 Lys Lys Asn Val Cys Leu Arg Thr Gly Ala Gln Glu Pro Glu Trp Met
 325 330 335
 Thr Trp Asn Trp Arg Thr Gln Asn Asp Val Leu Glu Asn Gly Ala Ile
 340 345 350
 Phe Val Ala Ser Gly Ser Asp Pro Val Leu Thr Ala Glu Gln Asn Ala
 355 360 365
 Gly Met Met Gln Ala Glu Pro Gly Asp Met Val Pro Gln Leu Thr Met
 370 375 380
 Asn Ala Gly Val Leu Thr Cys Ser Pro Gly Ala Pro Cys
 385 390 395

<210> 98

<211> 397

<212> PRT

<213> Ambrosia artemisiifolia

<400> 98

Met Gly Ile Lys Gln Cys Cys Tyr Ile Leu Tyr Phe Thr Leu Ala Leu
 1 5 10 15
 Val Ala Leu Leu Gln Pro Val Arg Ser Ala Glu Gly Val Gly Glu Ile
 20 25 30
 Leu Pro Ser Val Asn Glu Thr Arg Ser Leu Gln Ala Cys Glu Ala Leu
 35 40 45
 Asn Ile Ile Asp Lys Cys Trp Arg Gly Lys Ala Asp Trp Glu Asn Asn
 50 55 60
 Arg Gln Ala Leu Ala Asp Cys Ala Gln Gly Phe Ala Lys Gly Thr Tyr
 65 70 75 80
 Gly Gly Lys Trp Gly Asp Val Tyr Thr Val Thr Ser Asn Leu Asp Asp
 85 90 95
 Asp Val Ala Asn Pro Lys Glu Gly Thr Leu Arg Phe Ala Ala Ala Gln
 100 105 110
 Asn Arg Pro Leu Trp Ile Ile Phe Lys Asn Asp Met Val Ile Asn Leu
 115 120 125
 Asn Gln Glu Leu Val Val Asn Ser Asp Lys Thr Ile Asp Gly Arg Gly
 130 135 140
 Val Lys Val Glu Ile Ile Asn Gly Gly Leu Thr Leu Met Asn Val Lys
 145 150 155 160

5538-1010seqlisting.txt

Asn Ile Ile Ile His Asn Ile Asn Ile His Asp Val Lys Val Leu Pro
 165 170 175
 Gly Gly Met Ile Lys Ser Asn Asp Gly Pro Pro Ile Leu Arg Gln Ala
 180 185 190
 Ser Asp Gly Asp Thr Ile Asn Val Ala Gly Ser Ser Gln Ile Trp Ile
 195 200 205
 Asp His Cys Ser Leu Ser Lys Ser Phe Asp Gly Leu Val Asp Val Thr
 210 215 220
 Leu Gly Ser Thr His Val Thr Ile Ser Asn Cys Lys Phe Thr Gln Gln
 225 230 235 240
 Ser Lys Ala Ile Leu Leu Gly Ala Asp Asp Thr His Val Gln Asp Lys
 245 250 255
 Gly Met Leu Ala Thr Val Ala Phe Asn Met Phe Thr Asp Asn Val Asp
 260 265 270
 Gln Arg Met Pro Arg Cys Arg Phe Gly Phe Phe Gln Val Val Asn Asn
 275 280 285
 Asn Tyr Asp Arg Trp Gly Thr Tyr Ala Ile Gly Gly Ser Ser Ala Pro
 290 295 300
 Thr Ile Leu Cys Gln Gly Asn Arg Phe Leu Ala Pro Asp Asp Gln Ile
 305 310 315 320
 Lys Lys Asn Val Leu Ala Arg Thr Gly Thr Gly Ala Ala Glu Ser Met
 325 330 335
 Ala Trp Asn Trp Arg Ser Asp Lys Asp Leu Leu Glu Asn Gly Ala Ile
 340 345 350
 Phe Val Thr Ser Gly Ser Asp Pro Val Leu Thr Pro Val Gln Ser Ala
 355 360 365
 Gly Met Ile Pro Ala Glu Pro Gly Glu Ala Ala Ile Lys Leu Thr Ser
 370 375 380
 Ser Ala Gly Val Phe Ser Cys His Pro Gly Ala Pro Cys
 385 390 395

<210> 99

<211> 398

<212> PRT

<213> Ambrosia artemisiifolia

<400> 99

Met Gly Ile Lys His Cys Cys Tyr Ile Leu Tyr Phe Thr Leu Ala Leu
 1 5 10 15
 Val Thr Leu Leu Gln Pro Val Arg Ser Ala Glu Asp Val Glu Glu Phe
 20 25 30

5538-1010seqlisting.txt

Leu Pro Ser Ala Asn Glu Thr Arg Arg Ser Leu Lys Ala Cys Glu Ala
 35 40 45
 His Asn Ile Ile Asp Lys Cys Trp Arg Cys Lys Ala Asp Trp Ala Asn
 50 55 60
 Asn Arg Gln Ala Leu Ala Asp Cys Ala Gln Gly Phe Ala Lys Gly Thr
 65 70 75 80
 Tyr Gly Gly Lys His Gly Asp Val Tyr Thr Val Thr Ser Asp Lys Asp
 85 90 95
 Asp Asp Val Ala Asn Pro Lys Glu Gly Thr Leu Arg Phe Ala Ala Ala
 100 105 110
 Gln Asn Arg Pro Leu Trp Ile Ile Phe Lys Arg Asn Met Val Ile His
 115 120 125
 Leu Asn Gln Glu Leu Val Val Asn Ser Asp Lys Thr Ile Asp Gly Arg
 130 135 140
 Gly Val Lys Val Asn Ile Val Asn Ala Gly Leu Thr Leu Met Asn Val
 145 150 155 160
 Lys Asn Ile Ile Ile His Asn Ile Asn Ile His Asp Ile Lys Val Cys
 165 170 175
 Pro Gly Gly Met Ile Lys Ser Asn Asp Gly Pro Pro Ile Leu Arg Gln
 180 185 190
 Gln Ser Asp Gly Asp Ala Ile Asn Val Ala Gly Ser Ser Gln Ile Trp
 195 200 205
 Ile Asp His Cys Ser Leu Ser Lys Ala Ser Asp Gly Leu Leu Asp Ile
 210 215 220
 Thr Leu Gly Ser Ser His Val Thr Val Ser Asn Cys Lys Phe Thr Gln
 225 230 235 240
 His Gln Phe Val Leu Leu Leu Gly Ala Asp Asp Thr His Tyr Gln Asp
 245 250 255
 Lys Gly Met Leu Ala Thr Val Ala Phe Asn Met Phe Thr Asp His Val
 260 265 270
 Asp Gln Arg Met Pro Arg Cys Arg Phe Gly Phe Phe Gln Val Val Asn
 275 280 285
 Asn Asn Tyr Asp Arg Trp Gly Thr Tyr Ala Ile Gly Gly Ser Ser Ala
 290 295 300
 Pro Thr Ile Leu Ser Gln Gly Asn Arg Phe Phe Ala Pro Asp Asp Ile
 305 310 315 320
 Ile Lys Lys Asn Val Leu Ala Arg Thr Gly Thr Gly Asn Ala Glu Ser
 325 330 335
 Met Ser Trp Asn Trp Arg Thr Asp Arg Asp Leu Leu Glu Asn Gly Ala
 340 345 350
 Ile Phe Leu Pro Ser Gly Ser Asp Pro Val Leu Thr Pro Glu Gln Lys
 355 360 365

5538-1010seqlisting.txt

Ala Gly Met Ile Pro Ala Glu Pro Gly Glu Ala Val Leu Arg Leu Thr
370 375 380

Ser Ser Ala Gly Val Leu Ser Cys His Gln Gly Ala Pro Cys
385 390 395

<210> 100

<211> 396

<212> PRT

<213> Ambrosia artemisiifolia

<400> 100

Met Gly Ile Lys His Cys Cys Tyr Ile Leu Tyr Phe Thr Leu Ala Leu
1 5 10 15

Val Thr Leu Leu Gln Pro Val Arg Ser Ala Glu Asp Leu Gln Glu Ile
20 25 30

Leu Pro Val Asn Glu Thr Arg Arg Leu Thr Thr Ser Gly Ala Tyr Asn
35 40 45

Ile Ile Asp Gly Cys Trp Arg Gly Lys Ala Asp Trp Ala Glu Asn Arg
50 55 60

Lys Ala Leu Ala Asp Cys Ala Gln Gly Phe Gly Lys Gly Thr Val Gly
65 70 75 80

Gly Lys Asp Gly Asp Ile Tyr Thr Val Thr Ser Glu Leu Asp Asp Asp
85 90 95

Val Ala Asn Pro Lys Glu Gly Thr Leu Arg Phe Gly Ala Ala Gln Asn
100 105 110

Arg Pro Leu Trp Ile Ile Phe Glu Arg Asp Met Val Ile Arg Leu Asp
115 120 125

Lys Glu Met Val Val Asn Ser Asp Lys Thr Ile Asp Gly Arg Gly Ala
130 135 140

Lys Val Glu Ile Ile Asn Ala Gly Phe Thr Leu Asn Gly Val Lys Asn
145 150 155 160

Val Ile Ile His Asn Ile Asn Met His Asp Val Lys Val Asn Pro Gly
165 170 175

Gly Leu Ile Lys Ser Asn Asp Gly Pro Ala Ala Pro Arg Ala Gly Ser
180 185 190

Asp Gly Asp Ala Ile Ser Ile Ser Gly Ser Ser Gln Ile Trp Ile Asp
195 200 205

His Cys Ser Leu Ser Lys Ser Val Asp Gly Leu Val Asp Ala Lys Leu
210 215 220

Gly Thr Thr Arg Leu Thr Val Ser Asn Ser Leu Phe Thr Gln His Gln
225 230 235 240

5538-1010seqlisting.txt

Phe Val Leu Leu Phe Gly Ala Gly Asp Glu Asn Ile Glu Asp Arg Gly
245 250 255
Met Leu Ala Thr Val Ala Phe Asn Thr Phe Thr Asp Asn Val Asp Gln
260 265 270
Arg Met Pro Arg Cys Arg His Gly Phe Phe Gln Val Val Asn Asn Asn
275 280 285
Tyr Asp Lys Trp Gly Ser Tyr Ala Ile Gly Gly Ser Ala Ser Pro Thr
290 295 300
Ile Leu Ser Gln Gly Asn Arg Phe Cys Ala Pro Asp Glu Arg Ser Lys
305 310 315 320
Lys Asn Val Leu Gly Arg His Gly Glu Ala Ala Ala Glu Ser Met Lys
325 330 335
Trp Asn Trp Arg Thr Asn Lys Asp Val Leu Glu Asn Gly Ala Ile Phe
340 345 350
Val Ala Ser Gly Val Asp Pro Val Leu Thr Pro Glu Gln Ser Ala Gly
355 360 365
Met Ile Pro Ala Glu Pro Gly Glu Ser Ala Leu Ser Leu Thr Ser Ser
370 375 380
Ala Gly Val Leu Ser Cys Gln Pro Gly Ala Pro Cys
385 390 395

<210> 101

<211> 373

<212> PRT

<213> *Cryptomeria japonica*

<400> 101

Met Asp Ser Pro Cys Leu Val Ala Leu Leu Val Phe Ser Phe Val Ile
1 5 10 15
Gly Ser Cys Phe Ser Asp Asn Pro Ile Asp Ser Cys Trp Arg Gly Asp
20 25 30
Ser Asn Trp Ala Gln Asn Arg Met Lys Leu Ala Asp Cys Ala Val Gly
35 40 45
Phe Gly Ser Ser Thr Met Gly Gly Lys Gly Gly Asp Leu Tyr Thr Val
50 55 60
Thr Asn Ser Asp Asp Asp Pro Val Asn Pro Pro Gly Thr Leu Arg Tyr
65 70 75 80
Gly Ala Thr Arg Asp Arg Pro Leu Trp Ile Ile Phe Ser Gly Asn Met
85 90 95
Asn Ile Lys Leu Lys Met Pro Met Tyr Ile Ala Gly Tyr Lys Thr Phe
100 105 110

5538-1010seqlisting.txt

Asp Gly Arg Gly Ala Gln Val Tyr Ile Gly Asn Gly Gly Pro Cys Val
 115 120 125
 Phe Ile Lys Arg Val Ser Asn Val Ile Ile His Gly Leu Tyr Leu Tyr
 130 135 140
 Gly Cys Ser Thr Ser Val Leu Gly Asn Val Leu Ile Asn Glu Ser Phe
 145 150 155 160
 Gly Val Glu Pro Val His Pro Gln Asp Gly Asp Ala Leu Thr Leu Arg
 165 170 175
 Thr Ala Thr Asn Ile Trp Ile Asp His Asn Ser Phe Ser Asn Ser Ser
 180 185 190
 Asp Gly Leu Val Asp Val Thr Leu Thr Ser Thr Gly Val Thr Ile Ser
 195 200 205
 Asn Asn Leu Phe Phe Asn His His Lys Val Met Ser Leu Gly His Asp
 210 215 220
 Asp Ala Tyr Ser Asp Asp Lys Ser Met Lys Val Thr Val Ala Phe Asn
 225 230 235 240
 Gln Phe Gly Pro Asn Cys Gly Gln Arg Met Pro Arg Ala Arg Tyr Gly
 245 250 255
 Leu Val His Val Ala Asn Asn Asn Tyr Asp Pro Trp Thr Ile Tyr Ala
 260 265 270
 Ile Gly Gly Ser Ser Asn Pro Thr Ile Leu Ser Glu Gly Asn Ser Phe
 275 280 285
 Thr Ala Pro Asn Glu Ser Tyr Lys Lys Gln Val Thr Ile Arg Ile Gly
 290 295 300
 Cys Lys Thr Ser Ser Ser Cys Ser Asn Trp Val Trp Gln Ser Thr Gln
 305 310 315 320
 Asp Val Phe Tyr Asn Gly Ala Tyr Phe Val Ser Ser Gly Lys Tyr Glu
 325 330 335
 Gly Gly Asn Ile Tyr Thr Lys Lys Glu Ala Phe Asn Val Glu Asn Gly
 340 345 350
 Asn Ala Thr Pro His Leu Thr Gln Asn Ala Gly Val Leu Thr Cys Ser
 355 360 365
 Leu Ser Lys Arg Cys
 370

<210> 102

<211> 374

<212> PRT

<213> Cryptomeria japonica

<400> 102

5538-1010seqlisting.txt

Met Asp Ser Pro Cys Leu Val Ala Leu Leu Val Leu Ser Phe Val Ile
1 5 10 15
Gly Ser Cys Phe Ser Asp Asn Pro Ile Asp Ser Cys Trp Arg Gly Asp
20 25 30
Ser Asn Trp Ala Gln Asn Arg Met Lys Leu Ala Asp Cys Ala Val Gly
35 40 45
Phe Gly Ser Ser Thr Met Gly Gly Lys Gly Gly Asp Leu Tyr Thr Val
50 55 60
Thr Asn Ser Asp Asp Asp Pro Val Asn Pro Ala Pro Gly Thr Leu Arg
65 70 75 80
Tyr Gly Ala Thr Arg Asp Arg Pro Leu Trp Ile Ile Phe Ser Gly Asn
85 90 95
Met Asn Ile Lys Leu Lys Met Pro Met Tyr Ile Ala Gly Tyr Lys Thr
100 105 110
Phe Asp Gly Arg Gly Ala Gln Val Tyr Ile Gly Asn Gly Gly Pro Cys
115 120 125
Val Phe Ile Lys Arg Val Ser Asn Val Ile Ile His Gly Leu His Leu
130 135 140
Tyr Gly Cys Ser Thr Ser Val Leu Gly Asn Val Leu Ile Asn Glu Ser
145 150 155 160
Phe Gly Val Glu Pro Val His Pro Gln Asp Gly Asp Ala Leu Thr Leu
165 170 175
Arg Thr Ala Thr Asn Ile Trp Ile Asp His Asn Ser Phe Ser Asn Ser
180 185 190
Ser Asp Gly Leu Val Asp Val Thr Leu Ser Ser Thr Gly Val Thr Ile
195 200 205
Ser Asn Asn Leu Phe Phe Asn His His Lys Val Met Leu Leu Gly His
210 215 220
Asp Asp Ala Tyr Ser Asp Asp Lys Ser Met Lys Val Thr Val Ala Phe
225 230 235 240
Asn Gln Phe Gly Pro Asn Cys Gly Gln Arg Met Pro Arg Ala Arg Tyr
245 250 255
Gly Leu Val His Val Ala Asn Asn Asn Tyr Asp Pro Trp Thr Ile Tyr
260 265 270
Ala Ile Gly Gly Ser Ser Asn Pro Thr Ile Leu Ser Glu Gly Asn Ser
275 280 285
Phe Thr Ala Pro Asn Glu Ser Tyr Lys Lys Gln Val Thr Ile Arg Ile
290 295 300
Gly Cys Lys Thr Ser Ser Ser Cys Ser Asn Trp Val Trp Gln Ser Thr
305 310 315 320
Gln Asp Val Phe Tyr Asn Gly Ala Tyr Phe Val Ser Ser Gly Lys Tyr
325 330 335

5538-1010seqlisting.txt

Glu Gly Gly Asn Ile Tyr Thr Lys Lys Glu Ala Phe Asn Val Glu Asn
 340 345 350

Gly Asn Ala Thr Pro Gln Leu Thr Lys Asn Ala Gly Val Leu Thr Cys
 355 360 365

Ser Leu Ser Lys Arg Cys
 370

<210> 103

<211> 514

<212> PRT

<213> Cryptomeria japonica

<400> 103

Met Ala Met Lys Leu Ile Ala Pro Met Ala Phe Leu Ala Met Gln Leu
 1 5 10 15

Ile Ile Met Ala Ala Ala Glu Asp Gln Ser Ala Gln Ile Met Leu Asp
 20 25 30

Ser Val Val Glu Lys Tyr Leu Arg Ser Asn Arg Ser Leu Arg Lys Val
 35 40 45

Glu His Ser Arg His Asp Ala Ile Asn Ile Phe Asn Val Glu Lys Tyr
 50 55 60

Gly Ala Val Gly Asp Gly Lys His Asp Cys Thr Glu Ala Phe Ser Thr
 65 70 75 80

Ala Trp Gln Ala Ala Cys Lys Asn Pro Ser Ala Met Leu Leu Val Pro
 85 90 95

Gly Ser Lys Lys Phe Val Val Asn Asn Leu Phe Phe Asn Gly Pro Cys
 100 105 110

Gln Pro His Phe Thr Phe Lys Val Asp Gly Ile Ile Ala Ala Tyr Gln
 115 120 125

Asn Pro Ala Ser Trp Lys Asn Asn Arg Ile Trp Leu Gln Phe Ala Lys
 130 135 140

Leu Thr Gly Phe Thr Leu Met Gly Lys Gly Val Ile Asp Gly Gln Gly
 145 150 155 160

Lys Gln Trp Trp Ala Gly Gln Cys Lys Trp Val Asn Gly Arg Glu Ile
 165 170 175

Cys Asn Asp Arg Asp Arg Pro Thr Ala Ile Lys Phe Asp Phe Ser Thr
 180 185 190

Gly Leu Ile Ile Gln Gly Leu Lys Leu Met Asn Ser Pro Glu Phe His
 195 200 205

Leu Val Phe Gly Asn Cys Glu Gly Val Lys Ile Ile Gly Ile Ser Ile
 210 215 220

5538-1010seqlisting.txt

Thr Ala Pro Arg Asp Ser Pro Asn Thr Asp Gly Ile Asp Ile Phe Ala
 225 230 235 240
 Ser Lys Asn Phe His Leu Gln Lys Asn Thr Ile Gly Thr Gly Asp Asp
 245 250 255
 Cys Val Ala Ile Gly Thr Gly Ser Ser Asn Ile Val Ile Glu Asp Leu
 260 265 270
 Ile Cys Gly Pro Gly His Gly Ile Ser Ile Gly Ser Leu Gly Arg Glu
 275 280 285
 Asn Ser Arg Ala Glu Val Ser Tyr Val His Val Asn Gly Ala Lys Phe
 290 295 300
 Ile Asp Thr Gln Asn Gly Leu Arg Ile Lys Thr Trp Gln Gly Gly Ser
 305 310 315 320
 Gly Met Ala Ser His Ile Ile Tyr Glu Asn Val Glu Met Ile Asn Ser
 325 330 335
 Glu Asn Pro Ile Leu Ile Asn Gln Phe Tyr Cys Thr Ser Ala Ser Ala
 340 345 350
 Cys Gln Asn Gln Arg Ser Ala Val Gln Ile Gln Asp Val Thr Tyr Lys
 355 360 365
 Asn Ile Arg Gly Thr Ser Ala Thr Ala Ala Ala Ile Gln Leu Lys Cys
 370 375 380
 Ser Asp Ser Met Pro Cys Lys Asp Ile Lys Leu Ser Asp Ile Ser Leu
 385 390 395 400
 Lys Leu Thr Ser Gly Lys Ile Ala Ser Cys Leu Asn Asp Asn Ala Asn
 405 410 415
 Gly Tyr Phe Ser Gly His Val Ile Pro Ala Cys Lys Asn Leu Ser Pro
 420 425 430
 Ser Ala Lys Arg Lys Glu Ser Lys Ser His Lys His Pro Lys Thr Val
 435 440 445
 Met Val Glu Asn Met Arg Ala Tyr Asp Lys Gly Asn Arg Thr Arg Ile
 450 455 460
 Leu Leu Gly Ser Arg Pro Pro Asn Cys Thr Asn Lys Cys His Gly Cys
 465 470 475 480
 Ser Pro Cys Lys Ala Lys Leu Val Ile Val His Arg Ile Met Pro Gln
 485 490 495
 Glu Tyr Tyr Pro Gln Arg Trp Ile Cys Ser Cys His Gly Lys Ile Tyr
 500 505 510
 His Pro

<210> 104

<211> 514

<212> PRT

<213> Cryptomeria japonica

<400> 104

Met Ala Met Lys Phe Ile Ala Pro Met Ala Phe Val Ala Met Gln Leu
 1 5 10 15
 Ile Ile Met Ala Ala Ala Glu Asp Gln Ser Ala Gln Ile Met Leu Asp
 20 25 30
 Ser Asp Ile Glu Gln Tyr Leu Arg Ser Asn Arg Ser Leu Arg Lys Val
 35 40 45
 Glu His Ser Arg His Asp Ala Ile Asn Ile Phe Asn Val Glu Lys Tyr
 50 55 60
 Gly Ala Val Gly Asp Gly Lys His Asp Cys Thr Glu Ala Phe Ser Thr
 65 70 75 80
 Ala Trp Gln Ala Ala Cys Lys Lys Pro Ser Ala Met Leu Leu Val Pro
 85 90 95
 Gly Asn Lys Lys Phe Val Val Asn Asn Leu Phe Phe Asn Gly Pro Cys
 100 105 110
 Gln Pro His Phe Thr Phe Lys Val Asp Gly Ile Ile Ala Ala Tyr Gln
 115 120 125
 Asn Pro Ala Ser Trp Lys Asn Asn Arg Ile Trp Leu Gln Phe Ala Lys
 130 135 140
 Leu Thr Gly Phe Thr Leu Met Gly Lys Gly Val Ile Asp Gly Gln Gly
 145 150 155 160
 Lys Gln Trp Trp Ala Gly Gln Cys Lys Trp Val Asn Gly Arg Glu Ile
 165 170 175
 Cys Asn Asp Arg Asp Arg Pro Thr Ala Ile Lys Phe Asp Phe Ser Thr
 180 185 190
 Gly Leu Ile Ile Gln Gly Leu Lys Leu Met Asn Ser Pro Glu Phe His
 195 200 205
 Leu Val Phe Gly Asn Cys Glu Gly Val Lys Ile Ile Gly Ile Ser Ile
 210 215 220
 Thr Ala Pro Arg Asp Ser Pro Asn Thr Asp Gly Ile Asp Ile Phe Ala
 225 230 235 240
 Ser Lys Asn Phe His Leu Gln Lys Asn Thr Ile Gly Thr Gly Asp Asp
 245 250 255
 Cys Val Ala Ile Gly Thr Gly Ser Ser Asn Ile Val Ile Glu Asp Leu
 260 265 270
 Ile Cys Gly Pro Gly His Gly Ile Ser Ile Gly Ser Leu Gly Arg Glu
 275 280 285
 Asn Ser Arg Ala Glu Val Ser Tyr Val His Val Asn Gly Ala Lys Phe
 290 295 300

5538-1010seqlisting.txt

Ile Asp Thr Gln Asn Gly Leu Arg Ile Lys Thr Trp Gln Gly Gly Ser
 305 310 315 320
 Gly Met Ala Ser His Ile Ile Tyr Glu Asn Val Glu Met Ile Asn Ser
 325 330 335
 Glu Asn Pro Ile Leu Ile Asn Gln Phe Tyr Cys Thr Ser Ala Ser Ala
 340 345 350
 Cys Gln Asn Gln Arg Ser Ala Val Gln Ile Gln Asp Val Thr Tyr Lys
 355 360 365
 Asn Ile Arg Gly Thr Ser Ala Thr Ala Ala Ala Ile Gln Leu Lys Cys
 370 375 380
 Ser Asp Ser Met Pro Cys Lys Asp Ile Lys Leu Ser Asp Ile Ser Leu
 385 390 395 400
 Lys Leu Thr Ser Gly Lys Ile Ala Ser Cys Leu Asn Asp Asn Ala Asn
 405 410 415
 Gly Tyr Phe Ser Gly His Val Ile Pro Ala Cys Lys Asn Leu Ser Pro
 420 425 430
 Ser Ala Lys Arg Lys Glu Ser Lys Ser His Lys His Pro Lys Thr Val
 435 440 445
 Met Val Lys Asn Met Gly Ala Tyr Asp Lys Gly Asn Arg Thr Arg Ile
 450 455 460
 Leu Leu Gly Ser Arg Pro Pro Asn Cys Thr Asn Lys Cys His Gly Cys
 465 470 475 480
 Ser Pro Cys Lys Ala Lys Leu Val Ile Val His Arg Ile Met Pro Gln
 485 490 495
 Glu Tyr Tyr Pro Gln Arg Trp Met Cys Ser Arg His Gly Lys Ile Tyr
 500 505 510
 His Pro

<210> 105

<211> 373

<212> PRT

<213> Cryptomeria japonica

<400> 105

Met Asp Ser Pro Cys Leu Val Ala Leu Leu Val Leu Ser Phe Val Ile
 1 5 10 15
 Gly Ser Cys Phe Ser Asp Asn Pro Ile Asp Ser Cys Trp Arg Gly Asp
 20 25 30
 Ser Asn Trp Ala Gln Asn Arg Met Lys Leu Ala Asp Cys Ala Val Gly
 35 40 45

5538-1010seqlisting.txt

Phe Gly Ser Ser Thr Met Gly Gly Lys Gly Gly Asp Leu Tyr Thr Val
50 55 60
Thr Asn Ser Asp Asp Asp Pro Val Asn Pro Pro Gly Thr Leu Arg Tyr
65 70 75 80
Gly Ala Thr Arg Asp Arg Pro Leu Trp Ile Ile Phe Ser Gly Asn Met
85 90 95
Asn Ile Lys Leu Lys Met Pro Met Tyr Ile Ala Gly Tyr Lys Thr Phe
100 105 110
Asp Gly Arg Gly Ala Gln Val Tyr Ile Gly Asn Gly Gly Pro Cys Val
115 120 125
Phe Ile Lys Arg Val Ser Asn Val Ile Ile His Gly Leu His Leu Tyr
130 135 140
Gly Cys Ser Thr Ser Val Leu Gly Asn Val Leu Ile Asn Glu Ser Phe
145 150 155 160
Gly Val Glu Pro Val His Pro Gln Asp Gly Asp Ala Leu Thr Leu Arg
165 170 175
Thr Ala Thr Asn Ile Trp Ile Asp His Asn Ser Phe Ser Asn Ser Ser
180 185 190
Asp Gly Leu Val Asp Val Thr Leu Ser Ser Thr Gly Val Thr Ile Ser
195 200 205
Asn Asn Leu Phe Phe Asn His His Lys Val Met Leu Leu Gly His Asp
210 215 220
Asp Ala Tyr Ser Asp Asp Lys Ser Met Lys Val Thr Val Ala Phe Asn
225 230 235 240
Gln Phe Gly Pro Asn Cys Gly Gln Arg Met Pro Arg Ala Arg Tyr Gly
245 250 255
Leu Val His Val Ala Asn Asn Asn Tyr Asp Pro Trp Thr Ile Tyr Ala
260 265 270
Ile Gly Gly Ser Ser Asn Pro Thr Ile Leu Ser Glu Gly Asn Ser Phe
275 280 285
Thr Ala Pro Asn Glu Ser Tyr Lys Lys Gln Val Thr Ile Arg Ile Gly
290 295 300
Cys Lys Thr Ser Ser Ser Cys Ser Asn Trp Val Trp Gln Ser Thr Gln
305 310 315 320
Asp Val Phe Tyr Asn Gly Ala Tyr Phe Val Ser Ser Gly Lys Tyr Glu
325 330 335
Gly Gly Asn Ile Tyr Thr Lys Lys Glu Ala Phe Asn Val Glu Asn Gly
340 345 350
Asn Ala Thr Pro Gln Leu Thr Lys Asn Ala Gly Val Leu Thr Cys Ser
355 360 365
Leu Ser Lys Arg Cys
370

5538-1010seqlisting.txt

<210> 106

<211> 374

<212> PRT

<213> Cryptomeria japonica

<400> 106

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Met Asp Ser Pro Cys Leu Val Ala Leu Leu Val Phe Ser Phe Val Ile
1      5      10      15
Gly Ser Cys Phe Ser Asp Asn Pro Ile Asp Ser Cys Trp Arg Gly Asp
20     25     30
Ser Asn Trp Ala Gln Asn Arg Met Lys Leu Ala Asp Cys Ala Val Gly
35     40     45
Phe Gly Ser Ser Thr Met Gly Gly Lys Gly Gly Asp Leu Tyr Thr Val
50     55     60
Thr Asn Ser Asp Asp Asp Pro Val Asn Pro Ala Pro Gly Thr Leu Arg
65     70     75     80
Tyr Gly Ala Thr Arg Asp Arg Pro Leu Trp Ile Ile Phe Ser Gly Asn
85     90     95
Met Asn Ile Lys Leu Lys Met Pro Met Tyr Ile Ala Gly Tyr Lys Thr
100    105
Phe Asp Gly Arg Gly Ala Gln Val Tyr Ile Gly Asn Gly Gly Pro Cys
115    120    125
Val Phe Ile Lys Arg Val Ser Asn Val Ile Ile His Gly Leu Tyr Leu
130    135    140
Tyr Gly Cys Ser Thr Ser Val Leu Gly Asn Val Leu Ile Asn Glu Ser
145    150    155    160
Phe Gly Val Glu Pro Val His Pro Gln Asp Gly Asp Ala Leu Thr Leu
165    170    175
Arg Thr Ala Thr Asn Ile Trp Ile Asp His Asn Ser Phe Ser Asn Ser
180    185    190
Ser Asp Gly Leu Val Asp Val Thr Leu Thr Ser Thr Gly Val Thr Ile
195    200    205
Ser Asn Asn Leu Phe Phe Asn His His Lys Val Met Ser Leu Gly His
210    215    220
Asp Asp Ala Tyr Ser Asp Asp Lys Ser Met Lys Val Thr Val Ala Phe
225    230    235    240
Asn Gln Phe Gly Pro Asn Cys Gly Gln Arg Met Pro Arg Ala Arg Tyr
245    250    255
Gly Leu Val His Val Ala Asn Asn Asn Tyr Asp Pro Trp Thr Ile Tyr
260    265    270

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5538-1010seqlisting.txt

Ala Ile Gly Gly Ser Ser Asn Pro Thr Ile Leu Ser Glu Gly Asn Ser
275 280
Phe Thr Ala Pro Asn Glu Ser Tyr Lys Lys Gln Val Thr Ile Arg Ile
290 295 300
Gly Cys Lys Thr Ser Ser Ser Cys Ser Asn Trp Val Trp Gln Ser Thr
305 310 315 320
Gln Asp Val Phe Tyr Asn Gly Ala Tyr Phe Val Ser Ser Gly Lys Tyr
325 330 335
Glu Gly Gly Asn Ile Tyr Thr Lys Lys Glu Ala Phe Asn Val Glu Asn
340 345 350
Gly Asn Ala Thr Pro His Leu Thr Gln Asn Ala Gly Val Leu Thr Cys
355 360 365
Ser Leu Ser Lys Arg Cys
370

<210> 107

<211> 174

<212> PRT

<213> Canis familiaris

<400> 107

Met Lys Thr Leu Leu Leu Thr Ile Gly Phe Ser Leu Ile Ala Ile Leu
1 5 10 15
Gln Ala Gln Asp Thr Pro Ala Leu Gly Lys Asp Thr Val Ala Val Ser
20 25 30
Gly Lys Trp Tyr Leu Lys Ala Met Thr Ala Asp Gln Glu Val Pro Glu
35 40 45
Lys Pro Asp Ser Val Thr Pro Met Ile Leu Lys Ala Gln Lys Gly Gly
50 55 60
Asn Leu Glu Ala Lys Ile Thr Met Leu Thr Asn Gly Gln Cys Gln Asn
65 70 75 80
Ile Thr Val Val Leu His Lys Thr Ser Glu Pro Gly Lys Tyr Thr Ala
85 90 95
Tyr Glu Gly Gln Arg Val Val Phe Ile Gln Pro Ser Pro Val Arg Asp
100 105 110
His Tyr Ile Leu Tyr Cys Glu Gly Glu Leu His Gly Arg Gln Ile Arg
115 120 125
Met Ala Lys Leu Leu Gly Arg Asp Pro Glu Gln Ser Gln Glu Ala Leu
130 135 140
Glu Asp Phe Arg Glu Phe Ser Arg Ala Lys Gly Leu Asn Gln Glu Ile
145 150 155 160

5538-1010seqlisting.txt

Leu Glu Leu Ala Gln Ser Glu Thr Cys Ser Pro Gly Gly Gln
165 170

<210> 108

<211> 24

<212> PRT

<213> Canis familiaris

<400> 108

Glu Ala Tyr Lys Ser Glu Ile Ala His Arg Tyr Asn Asp Leu Gly Glu
1 5 10 15

Glu His Phe Arg Gly Leu Val Leu
20

<210> 109

<211> 265

<212> PRT

<213> Canis familiaris

<400> 109

Leu Ser Ser Ala Lys Glu Arg Phe Lys Cys Ala Ser Leu Gln Lys Phe
1 5 10 15

Gly Asp Arg Ala Phe Lys Ala Trp Ser Val Ala Arg Leu Ser Gln Arg
20 25 30

Phe Pro Lys Ala Asp Phe Ala Glu Ile Ser Lys Val Val Thr Asp Leu
35 40 45

Thr Lys Val His Lys Glu Cys Cys His Gly Asp Leu Leu Glu Cys Ala
50 55 60

Asp Asp Arg Ala Asp Leu Ala Lys Tyr Met Cys Glu Asn Gln Asp Ser
65 70 75 80

Ile Ser Thr Lys Leu Lys Glu Cys Cys Asp Lys Pro Val Leu Glu Lys
85 90 95

Ser Gln Cys Leu Ala Glu Val Glu Arg Asp Glu Leu Pro Gly Asp Leu
100 105 110

Pro Ser Leu Ala Ala Asp Phe Val Glu Asp Lys Glu Val Cys Lys Asn
115 120 125

Tyr Gln Glu Ala Lys Asp Val Phe Leu Gly Thr Phe Leu Tyr Glu Tyr
130 135 140

Ser Arg Arg His Pro Glu Tyr Ser Val Ser Leu Leu Leu Arg Leu Ala
145 150 155 160

5538-1010seqlisting.txt

Lys Glu Tyr Glu Ala Thr Leu Glu Lys Cys Cys Ala Thr Asp Asp Pro
165 170 175
Pro Thr Cys Tyr Ala Lys Val Leu Asp Glu Phe Lys Pro Leu Val Asp
180 185 190
Glu Pro Gln Asn Leu Val Lys Thr Asn Cys Glu Leu Phe Glu Lys Leu
195 200 205
Gly Glu Tyr Gly Phe Gln Asn Ala Leu Leu Val Arg Tyr Thr Lys Lys
210 215 220
Ala Pro Gln Val Ser Thr Pro Thr Leu Val Val Glu Val Ser Arg Lys
225 230 235 240
Leu Gly Lys Val Gly Thr Lys Cys Cys Lys Lys Pro Glu Ser Glu Arg
245 250 255
Met Ser Cys Ala Asp Asp Phe Leu Ser
260 265

<210> 110

<211> 180

<212> PRT

<213> Canis familiaris

<400> 110

Met Gln Leu Leu Leu Leu Thr Val Gly Leu Ala Leu Ile Cys Gly Leu
1 5 10 15
Gln Ala Gln Glu Gly Asn His Glu Glu Pro Gln Gly Gly Leu Glu Glu
20 25 30
Leu Ser Gly Arg Trp His Ser Val Ala Leu Ala Ser Asn Lys Ser Asp
35 40 45
Leu Ile Lys Pro Trp Gly His Phe Arg Val Phe Ile His Ser Met Ser
50 55 60
Ala Lys Asp Gly Asn Leu His Gly Asp Ile Leu Ile Pro Gln Asp Gly
65 70 75 80
Gln Cys Glu Lys Val Ser Leu Thr Ala Phe Lys Thr Ala Thr Ser Asn
85 90 95
Lys Phe Asp Leu Glu Tyr Trp Gly His Asn Asp Leu Tyr Leu Ala Glu
100 105 110
Val Asp Pro Lys Ser Tyr Leu Ile Leu Tyr Met Ile Asn Gln Tyr Asn
115 120 125
Asp Asp Thr Ser Leu Val Ala His Leu Met Val Arg Asp Leu Ser Arg
130 135 140
Gln Gln Asp Phe Leu Pro Ala Phe Glu Ser Val Cys Glu Asp Ile Gly
145 150 155 160

5538-1010seqlisting.txt

Leu His Lys Asp Gln Ile Val Val Leu Ser Asp Asp Asp Arg Cys Gln
165 170 175

Gly Ser Arg Asp
180

<210> 111

<211> 187

<212> PRT

<213> Equus caballus

<400> 111

Met Lys Leu Leu Leu Leu Cys Leu Gly Leu Ile Leu Val Cys Ala Gln
1 5 10 15

Gln Glu Glu Asn Ser Asp Val Ala Ile Arg Asn Phe Asp Ile Ser Lys
20 25 30

Ile Ser Gly Glu Trp Tyr Ser Ile Phe Leu Ala Ser Asp Val Lys Glu
35 40 45

Lys Ile Glu Glu Asn Gly Ser Met Arg Val Phe Val Asp Val Ile Arg
50 55 60

Ala Leu Asp Asn Ser Ser Leu Tyr Ala Glu Tyr Gln Thr Lys Val Asn
65 70 75 80

Gly Glu Cys Thr Glu Phe Pro Met Val Phe Asp Lys Thr Glu Glu Asp
85 90 95

Gly Val Tyr Ser Leu Asn Tyr Asp Gly Tyr Asn Val Phe Arg Ile Ser
100 105 110

Glu Phe Glu Asn Asp Glu His Ile Ile Leu Tyr Leu Val Asn Phe Asp
115 120 125

Lys Asp Arg Pro Phe Gln Leu Phe Glu Phe Tyr Ala Arg Glu Pro Asp
130 135 140

Val Ser Pro Glu Ile Lys Glu Glu Phe Val Lys Ile Val Gln Lys Arg
145 150 155 160

Gly Ile Val Lys Glu Asn Ile Ile Asp Leu Thr Lys Ile Asp Arg Cys
165 170 175

Phe Gln Leu Arg Gly Asn Gly Val Ala Gln Ala
180 185

<210> 112

<211> 29

<212> PRT

<213> Equus caballus

<220>

<221> misc_feature

<223> X is unknown amino acid

<400> 112

Ser Gln Xaa Pro Gln Ser Glu Thr Asp Tyr Ser Gln Leu Ser Gly Glu
 1 5 10 15
 Trp Asn Thr Ile Tyr Gly Ala Ala Ser Asn Ile Xaa Lys
 20 25

<210> 113

<211> 211

<212> PRT

<213> Euroglyphus maynei

<400> 113

Thr Tyr Ala Cys Ser Ile Asn Ser Val Ser Leu Pro Ser Glu Leu Asp
 1 5 10 15
 Leu Arg Ser Leu Arg Thr Val Thr Pro Ile Arg Met Gln Gly Gly Cys
 20 25 30
 Gly Ser Cys Trp Ala Phe Ser Gly Val Ala Ser Thr Glu Ser Ala Tyr
 35 40 45
 Leu Ala Tyr Arg Asn Met Ser Leu Asp Leu Ala Glu Gln Glu Leu Val
 50 55 60
 Asp Cys Ala Ser Gln Asn Gly Cys His Gly Asp Thr Ile Pro Arg Gly
 65 70 75 80
 Ile Glu Tyr Ile Gln Gln Asn Gly Val Val Gln Glu His Tyr Tyr Pro
 85 90 95
 Tyr Val Ala Arg Glu Gln Ser Cys His Arg Pro Asn Ala Gln Arg Tyr
 100 105 110
 Gly Leu Lys Asn Tyr Cys Gln Ile Ser Pro Pro Asp Ser Asn Lys Ile
 115 120 125
 Arg Gln Ala Leu Thr Gln Thr His Thr Ala Val Ala Val Ile Ile Gly
 130 135 140
 Ile Lys Asp Leu Asn Ala Phe Arg His Tyr Asp Gly Arg Thr Ile Met
 145 150 155 160
 Gln His Asp Asn Gly Tyr Gln Pro Asn Tyr His Ala Val Asn Ile Val
 165 170 175

Gly Tyr Gly Asn Thr Gln Gly Val Asp Tyr Trp Ile Val Arg Asn Ser
 180 185 190

Trp Asp Thr Thr Trp Gly Asp Asn Gly Tyr Gly Tyr Phe Ala Ala Asn
 195 200 205

Ile Asn Leu
 210

<210> 114

<211> 211

<212> PRT

<213> Euroglyphus maynei

<400> 114

Thr Tyr Ala Cys Ser Ile Asn Ser Val Ser Leu Pro Ser Glu Leu Asp
 1 5 10 15

Leu Arg Ser Leu Arg Thr Val Thr Pro Ile Arg Met Gln Gly Gly Cys
 20 25 30

Gly Ser Cys Trp Ala Phe Ser Gly Val Ala Ser Thr Glu Ser Ala Tyr
 35 40 45

Leu Ala Tyr Arg Asn Met Ser Leu Asp Leu Ala Glu Gln Glu Leu Val
 50 55 60

Asp Cys Ala Ser Gln Asn Gly Cys His Gly Asp Thr Ile Pro Arg Gly
 65 70 75 80

Ile Glu Tyr Ile Gln Gln Asn Gly Val Val Gln Glu His Tyr Tyr Pro
 85 90 95

Tyr Val Ala Arg Glu Gln Ser Cys His Arg Pro Asn Ala Gln Arg Tyr
 100 105 110

Gly Leu Lys Asn Tyr Cys Gln Ile Ser Pro Pro Asp Ser Asn Lys Ile
 115 120 125

Arg Gln Ala Leu Thr Gln Thr His Thr Ala Val Ala Val Ile Ile Gly
 130 135 140

Ile Lys Asp Leu Asn Ala Phe Arg His Tyr Asp Gly Arg Thr Ile Met
 145 150 155 160

Gln His Asp Asn Gly Tyr Gln Pro Asn Tyr His Ala Val Asn Ile Val
 165 170 175

Gly Tyr Gly Asn Thr Gln Gly Val Asp Tyr Trp Ile Val Arg Asn Ser
 180 185 190

Trp Asp Thr Thr Trp Gly Asp Asn Gly Tyr Gly Tyr Phe Ala Ala Asn
 195 200 205

Ile Asn Leu
 210

<210> 115

<211> 211

<212> PRT

<213> Euroglyphus maynei

<400> 115

Glu Thr Asn Ala Cys Ser Ile Asn Gly Asn Ala Pro Ala Glu Ile Asp
 1 5 10 15
 Leu Arg Gln Met Arg Thr Val Thr Pro Ile Arg Met Gln Gly Gly Cys
 20 25 30
 Gly Ser Cys Trp Ala Phe Ser Gly Val Ala Ala Thr Glu Ser Ala Tyr
 35 40 45
 Leu Ala Tyr Arg Asn Gln Ser Leu Asp Leu Ala Glu Gln Glu Leu Val
 50 55 60
 Asp Cys Ala Ser Gln His Gly Cys His Gly Asp Thr Ile Pro Arg Gly
 65 70 75 80
 Ile Glu Tyr Ile Gln His Asn Gly Val Val Gln Glu Ser Tyr Tyr Arg
 85 90 95
 Tyr Val Ala Arg Glu Gln Ser Cys Arg Arg Pro Asn Ala Gln Arg Phe
 100 105 110
 Gly Ile Ser Asn Tyr Cys Gln Ile Tyr Pro Pro Asn Ala Asn Lys Ile
 115 120 125
 Arg Glu Ala Leu Ala Gln Thr His Ser Ala Ile Ala Val Ile Ile Gly
 130 135 140
 Ile Lys Asp Leu Asp Ala Phe Arg His Tyr Asp Gly Arg Thr Ile Ile
 145 150 155 160
 Gln Arg Asp Asn Gly Tyr Gln Pro Asn Tyr His Ala Val Asn Ile Val
 165 170 175
 Gly Tyr Ser Asn Ala Gln Gly Val Asp Tyr Trp Ile Val Arg Asn Ser
 180 185 190
 Trp Asp Thr Asn Trp Gly Asp Asn Gly Tyr Gly Tyr Phe Ala Ala Asn
 195 200 205
 Ile Asp Leu
 210

<210> 116

<211> 212

<212> PRT

<213> Euroglyphus maynei

5538-1010seqlisting.txt

<400> 116

Glu Thr Ser Ala Cys Arg Ile Asn Ser Val Asn Val Pro Ser Glu Leu
1 5 10 15
Asp Leu Arg Ser Leu Arg Thr Val Thr Pro Ile Arg Met Gln Gly Gly
20 25 30
Cys Gly Ser Cys Trp Ala Phe Ser Gly Val Ala Ala Thr Glu Ser Ala
35 40 45
Tyr Leu Ala Tyr Arg Asn Thr Ser Leu Asp Leu Ser Glu Gln Glu Leu
50 55 60
Val Asp Cys Ala Ser Gln His Gly Cys His Gly Asp Thr Ile Pro Arg
65 70 75 80
Gly Ile Glu Tyr Ile Gln Gln Asn Gly Val Val Glu Glu Arg Ser Tyr
85 90 95
Pro Tyr Val Ala Arg Glu Gln Gln Cys Arg Arg Pro Asn Ser Gln His
100 105 110
Tyr Gly Ile Ser Asn Tyr Cys Gln Ile Tyr Pro Pro Asp Val Lys Gln
115 120 125
Ile Arg Glu Ala Leu Thr Gln Thr His Thr Ala Ile Ala Val Ile Ile
130 135 140
Gly Ile Lys Asp Leu Arg Ala Phe Gln His Tyr Asp Gly Arg Thr Ile
145 150 155 160
Ile Gln His Asp Asn Gly Tyr Gln Pro Asn Tyr His Ala Val Asn Ile
165 170 175
Val Gly Tyr Gly Ser Thr Gln Gly Val Asp Tyr Trp Ile Val Arg Asn
180 185 190
Ser Trp Asp Thr Thr Trp Gly Asp Ser Gly Tyr Gly Tyr Phe Gln Ala
195 200 205
Gly Asn Asn Leu
210

<210> 117

<211> 307

<212> PRT

<213> Poa pratensis

<400> 117

Met Ala Val Gln Lys Tyr Thr Val Ala Leu Phe Leu Val Ala Leu Val
1 5 10 15
Val Gly Pro Ala Ala Ser Tyr Ala Ala Asp Leu Ser Tyr Gly Ala Pro
20 25 30

5538-1010seqlisting.txt

Ala Thr Pro Ala Ala Pro Ala Ala Gly Tyr Thr Pro Ala Ala Pro Ala
 35 40 45
 Gly Ala Ala Pro Lys Ala Thr Thr Asp Glu Gln Lys Met Ile Glu Lys
 50 55 60
 Ile Asn Val Gly Phe Lys Ala Ala Val Ala Ala Ala Gly Gly Val Pro
 65 70 75 80
 Ala Ala Asn Lys Tyr Lys Thr Phe Val Ala Thr Phe Gly Ala Ala Ser
 85 90 95
 Asn Lys Ala Phe Ala Glu Ala Leu Ser Thr Glu Pro Lys Gly Ala Ala
 100 105 110
 Val Asp Ser Ser Lys Ala Ala Leu Thr Ser Lys Leu Asp Ala Ala Tyr
 115 120 125
 Lys Leu Ala Tyr Lys Ser Ala Glu Gly Ala Thr Pro Glu Ala Lys Tyr
 130 135 140
 Asp Asp Tyr Val Ala Thr Leu Ser Glu Ala Leu Arg Ile Ile Ala Gly
 145 150 155 160
 Thr Leu Glu Val His Gly Val Lys Pro Ala Ala Glu Glu Val Lys Ala
 165 170 175
 Thr Pro Ala Gly Glu Leu Gln Val Ile Asp Lys Val Asp Ala Ala Phe
 180 185 190
 Lys Val Ala Ala Thr Ala Ala Asn Ala Ala Pro Ala Asn Asp Lys Phe
 195 200 205
 Thr Val Phe Glu Ala Ala Phe Asn Asp Ala Ile Lys Ala Ser Thr Gly
 210 215 220
 Gly Ala Tyr Gln Ser Tyr Lys Phe Ile Pro Ala Leu Glu Ala Ala Val
 225 230 235 240
 Lys Gln Ser Tyr Ala Ala Thr Val Ala Thr Ala Pro Ala Val Lys Tyr
 245 250 255
 Thr Val Phe Glu Thr Ala Leu Lys Lys Ala Ile Thr Ala Met Ser Gln
 260 265 270
 Ala Gln Lys Ala Ala Lys Pro Ala Ala Ala Ala Thr Gly Thr Ala Thr
 275 280 285
 Ala Ala Val Gly Ala Ala Thr Gly Ala Ala Thr Ala Ala Ala Gly Gly
 290 295 300
 Tyr Lys Val
 305

<210> 118

<211> 333

<212> PRT

<213> Poa pratensis

5538-1010seqlisting.txt

<400> 118

Met Ala Val His Gln Tyr Thr Val Ala Leu Phe Leu Ala Val Ala Leu
 1 5 10 15
 Val Ala Gly Pro Ala Ala Ser Tyr Ala Ala Asp Val Gly Tyr Gly Ala
 20 25 30
 Pro Ala Thr Leu Ala Thr Pro Ala Thr Pro Ala Ala Pro Ala Ala Gly
 35 40 45
 Tyr Thr Pro Ala Ala Pro Ala Gly Ala Ala Pro Lys Ala Thr Thr Asp
 50 55 60
 Glu Gln Lys Leu Ile Glu Lys Ile Asn Ala Gly Phe Lys Ala Ala Val
 65 70 75 80
 Ala Ala Ala Ala Gly Val Pro Ala Val Asp Lys Tyr Lys Thr Phe Val
 85 90 95
 Ala Thr Phe Gly Thr Ala Ser Asn Lys Ala Phe Ala Glu Ala Leu Ser
 100 105 110
 Thr Glu Pro Lys Gly Ala Ala Ala Ala Ser Ser Asn Ala Val Leu Thr
 115 120 125
 Ser Lys Leu Asp Ala Ala Tyr Lys Leu Ala Tyr Lys Ser Ala Glu Gly
 130 135 140
 Ala Thr Pro Glu Ala Lys Tyr Asp Ala Tyr Val Ala Thr Leu Ser Glu
 145 150 155 160
 Ala Leu Arg Ile Ile Ala Gly Thr Leu Glu Val His Ala Val Lys Pro
 165 170 175
 Ala Gly Glu Glu Val Lys Ala Ile Pro Ala Gly Glu Leu Gln Val Ile
 180 185 190
 Asp Lys Val Asp Ala Ala Phe Lys Val Ala Ala Thr Ala Ala Asn Ala
 195 200 205
 Ala Pro Ala Asn Asp Lys Phe Thr Val Phe Glu Ala Ala Phe Asn Asp
 210 215 220
 Ala Ile Lys Ala Ser Thr Gly Gly Ala Tyr Gln Ser Tyr Lys Phe Ile
 225 230 235 240
 Pro Ala Leu Glu Ala Ala Val Lys Gln Ser Tyr Ala Ala Thr Val Ala
 245 250 255
 Thr Ala Pro Ala Val Lys Tyr Thr Val Phe Glu Thr Ala Leu Lys Lys
 260 265 270
 Ala Ile Thr Ala Met Ser Gln Ala Gln Lys Ala Ala Lys Pro Ala Ala
 275 280 285
 Ala Val Thr Ala Thr Ala Thr Gly Ala Val Gly Ala Ala Thr Gly Ala
 290 295 300
 Val Gly Ala Ala Thr Gly Ala Ala Thr Ala Ala Ala Gly Gly Tyr Lys
 305 310 315 320

Thr Gly Ala Ala Thr Pro Thr Ala Gly Gly Tyr Lys Val
 325 330

<210> 119

<211> 373

<212> PRT

<213> Poa pratensis

<400> 119

Met Asp Lys Ala Asn Gly Ala Tyr Lys Thr Ala Leu Lys Ala Ala Ser
 1 5 10 15
 Ala Val Ala Pro Ala Glu Lys Phe Pro Val Phe Gln Ala Thr Phe Asp
 20 25 30
 Lys Asn Leu Lys Glu Gly Leu Ser Gly Pro Asp Ala Val Gly Phe Ala
 35 40 45
 Lys Lys Leu Asp Ala Phe Ile Gln Thr Ser Tyr Leu Ser Thr Lys Ala
 50 55 60
 Ala Glu Pro Lys Glu Lys Phe Asp Leu Phe Val Leu Ser Leu Thr Glu
 65 70 75 80
 Val Leu Arg Phe Met Ala Gly Ala Val Lys Ala Pro Pro Ala Ser Lys
 85 90 95
 Phe Pro Ala Lys Pro Ala Pro Lys Val Ala Ala Tyr Thr Pro Ala Ala
 100 105 110
 Pro Ala Gly Ala Ala Pro Lys Ala Thr Thr Asp Glu Gln Lys Leu Ile
 115 120 125
 Glu Lys Ile Asn Val Gly Phe Lys Ala Ala Val Ala Ala Ala Gly
 130 135 140
 Val Pro Ala Ala Ser Lys Tyr Lys Thr Phe Val Ala Thr Phe Gly Ala
 145 150 155 160
 Ala Ser Asn Lys Ala Phe Ala Glu Ala Leu Ser Thr Glu Pro Lys Gly
 165 170 175
 Ala Ala Val Ala Ser Ser Lys Ala Val Leu Thr Ser Lys Leu Asp Ala
 180 185 190
 Ala Tyr Lys Leu Ala Tyr Lys Ser Ala Glu Gly Ala Thr Pro Glu Ala
 195 200 205
 Lys Tyr Asp Ala Tyr Val Ala Thr Leu Ser Glu Ala Leu Arg Ile Ile
 210 215 220
 Ala Gly Thr Leu Glu Val His Gly Val Lys Pro Ala Ala Glu Glu Val
 225 230 235 240
 Lys Ala Ile Pro Ala Gly Glu Leu Gln Val Ile Asp Lys Val Asp Ala
 245 250 255

5538-1010seqlisting.txt

Ala Phe Lys Val Ala Ala Thr Ala Ala Asn Ala Ala Pro Ala Asn Asp
 260 265 270
 Lys Phe Thr Val Phe Glu Ala Ala Phe Asn Asp Ala Ile Lys Ala Ser
 275 280 285
 Thr Gly Gly Ala Tyr Gln Ser Tyr Lys Phe Ile Pro Ala Leu Glu Ala
 290 295 300
 Ala Val Lys Gln Ser Tyr Ala Ala Thr Val Ala Thr Ala Pro Ala Val
 305 310 315 320
 Lys Tyr Thr Val Phe Glu Thr Ala Leu Lys Lys Ala Ile Thr Ala Met
 325 330 335
 Ser Gln Ala Gln Lys Ala Ala Lys Pro Ala Ala Ala Val Thr Gly Thr
 340 345 350
 Ala Thr Ser Ala Val Gly Ala Ala Thr Gly Ala Ala Thr Ala Ala Ala
 355 360 365
 Gly Gly Tyr Lys Val
 370

<210> 120

<211> 685

<212> PRT

<213> *Periplaneta americana*

<400> 120

Met Lys Thr Ala Leu Val Phe Ala Ala Val Val Ala Phe Val Ala Ala
 1 5 10 15
 Arg Phe Pro Asp His Lys Asp Tyr Lys Gln Leu Ala Asp Lys Gln Phe
 20 25 30
 Leu Ala Lys Gln Arg Asp Val Leu Arg Leu Phe His Arg Val His Gln
 35 40 45
 His Asn Ile Leu Asn Asp Gln Val Glu Val Gly Ile Pro Met Thr Ser
 50 55 60
 Lys Gln Thr Ser Ala Thr Thr Val Pro Pro Ser Gly Glu Ala Val His
 65 70 75 80
 Gly Val Leu Gln Glu Gly His Ala Arg Pro Arg Gly Glu Pro Phe Ser
 85 90 95
 Val Asn Tyr Glu Lys His Arg Glu Gln Ala Ile Met Leu Tyr Asp Leu
 100 105 110
 Leu Tyr Phe Ala Asn Asp Tyr Asp Thr Phe Tyr Lys Thr Ala Cys Trp
 115 120 125
 Ala Arg Asp Arg Val Asn Glu Gly Met Phe Met Tyr Ser Phe Ser Ile
 130 135 140

5538-1010seqlisting.txt

Ala Val Phe His Arg Asp Asp Met Gln Gly Val Met Leu Pro Pro Pro
 145 150 155 160
 Tyr Glu Val Tyr Pro Tyr Leu Phe Val Asp His Asp Val Ile His Met
 165 170 175
 Ala Gln Lys Tyr Trp Met Lys Asn Ala Gly Ser Gly Glu His His Ser
 180 185 190
 His Val Ile Pro Val Asn Phe Thr Leu Arg Thr Gln Asp His Leu Leu
 195 200 205
 Ala Tyr Phe Thr Ser Asp Val Asn Leu Asn Ala Phe Asn Thr Tyr Tyr
 210 215 220
 Arg Tyr Tyr Tyr Pro Ser Trp Tyr Asn Thr Thr Leu Tyr Gly His Asn
 225 230 235 240
 Ile Asp Arg Arg Gly Glu Gln Phe Tyr Tyr Thr Tyr Lys Gln Ile Tyr
 245 250 255
 Ala Arg Tyr Phe Leu Glu Arg Leu Ser Asn Asp Leu Pro Asp Val Tyr
 260 265 270
 Pro Phe Tyr Tyr Ser Lys Pro Val Lys Ser Ala Tyr Asn Pro Asn Leu
 275 280 285
 Arg Tyr His Asn Gly Glu Glu Met Pro Val Arg Pro Ser Asn Met Tyr
 290 295 300
 Val Thr Asn Phe Asp Leu Tyr Tyr Ile Ala Asp Ile Lys Asn Tyr Glu
 305 310 315 320
 Lys Arg Val Glu Asp Ala Ile Asp Phe Gly Tyr Ala Phe Asp Glu His
 325 330 335
 Met Lys Pro His Ser Leu Tyr His Asp Val His Gly Met Glu Tyr Leu
 340 345 350
 Ala Asp Met Ile Glu Gly Asn Met Asp Ser Pro Asn Phe Tyr Phe Tyr
 355 360 365
 Gly Ser Ile Tyr His Met Tyr His Ser Met Ile Gly His Ile Val Asp
 370 375 380
 Pro Tyr His Lys Met Gly Leu Ala Pro Ser Leu Glu His Pro Glu Thr
 385 390 395 400
 Val Leu Arg Asp Pro Val Phe Tyr Gln Leu Trp Lys Arg Val Asp His
 405 410 415
 Leu Phe Gln Lys Tyr Lys Asn Arg Leu Pro Arg Tyr Thr His Asp Glu
 420 425 430
 Leu Ala Phe Glu Gly Val Lys Val Glu Asn Val Asp Val Gly Lys Leu
 435 440 445
 Tyr Thr Tyr Phe Glu Gln Tyr Asp Met Ser Leu Asp Met Ala Val Tyr
 450 455 460
 Val Asn Asn Val Asp Gln Ile Ser Asn Val Asp Val Gln Leu Ala Val
 465 470 475 480

5538-1010seqlisting.txt

Arg Leu Asn His Lys Pro Phe Thr Tyr Asn Ile Glu Val Ser Ser Asp
 485 490 495
 Lys Ala Gln Asp Val Tyr Val Ala Val Phe Leu Gly Pro Lys Tyr Asp
 500 505 510
 Tyr Leu Gly Arg Glu Tyr Asp Leu Asn Asp Arg Arg His Tyr Phe Val
 515 520 525
 Glu Met Asp Arg Phe Pro Tyr His Val Gly Ala Gly Lys Thr Val Ile
 530 535 540
 Glu Arg Asn Ser His Asp Ser Asn Ile Ile Ala Pro Glu Arg Asp Ser
 545 550 555 560
 Tyr Arg Thr Phe Tyr Lys Lys Val Gln Glu Ala Tyr Glu Gly Lys Ser
 565 570 575
 Gln Tyr Tyr Val Asp Lys Gly His Asn Tyr Cys Gly Tyr Pro Glu Asn
 580 585 590
 Leu Leu Ile Pro Lys Gly Lys Lys Gly Gly Gln Ala Tyr Thr Phe Tyr
 595 600 605
 Val Ile Val Thr Pro Tyr Val Lys Gln Asp Glu His Asp Phe Glu Pro
 610 615 620
 Tyr Asn Tyr Lys Ala Phe Ser Tyr Cys Gly Val Gly Ser Glu Arg Lys
 625 630 635 640
 Tyr Pro Asp Asn Lys Pro Leu Gly Tyr Pro Phe Asp Arg Lys Ile Tyr
 645 650 655
 Ser Asn Asp Phe Tyr Thr Pro Asn Met Tyr Phe Lys Asp Val Ile Ile
 660 665 670
 Phe His Lys Lys Tyr Asp Glu Val Gly Val Gln Gly His
 675 680 685

<210> 121

<211> 446

<212> PRT

<213> Periplaneta americana

<400> 121

Ile Asn Glu Ile His Ser Ile Ile Gly Leu Pro Pro Phe Val Pro Pro
 1 5 10 15
 Ser Arg Arg His Ala Arg Arg Gly Val Gly Ile Asn Gly Leu Ile Asp
 20 25 30
 Asp Val Ile Ala Ile Leu Pro Val Asp Glu Leu Lys Ala Leu Phe Gln
 35 40 45
 Glu Lys Leu Glu Thr Ser Pro Asp Phe Lys Ala Leu Tyr Asp Ala Ile
 50 55 60

5538-1010seqlisting.txt

Arg Ser Pro Glu Phe Gln Ser Ile Ile Ser Thr Leu Asn Ala Met Gln
 65 70 75 80
 Arg Ser Glu His His Gln Asn Leu Arg Asp Lys Gly Val Asp Val Asp
 85 90 95
 His Phe Ile Gln Leu Ile Arg Ala Leu Phe Gly Leu Ser Arg Ala Ala
 100 105 110
 Arg Asn Leu Gln Asp Asp Leu Asn Asp Phe Leu His Ser Leu Glu Pro
 115 120 125
 Ile Ser Pro Arg His Arg His Gly Leu Pro Arg Gln Arg Arg Arg Ser
 130 135 140
 Ala Arg Val Ser Ala Tyr Leu His Ala Asp Asp Phe His Lys Ile Ile
 145 150 155 160
 Thr Thr Ile Glu Ala Leu Pro Glu Phe Ala Asn Phe Tyr Asn Phe Leu
 165 170 175
 Lys Glu His Gly Leu Asp Val Val Asp Tyr Ile Asn Glu Ile His Ser
 180 185 190
 Ile Ile Gly Leu Pro Pro Phe Val Pro Pro Ser Arg Arg His Ala Arg
 195 200 205
 Arg Gly Val Gly Ile Asn Gly Leu Ile Asp Asp Val Ile Ala Ile Leu
 210 215 220
 Pro Val Asp Glu Leu Lys Ala Leu Phe Gln Glu Lys Leu Glu Thr Ser
 225 230 235 240
 Pro Asp Phe Lys Ala Leu Tyr Asp Ala Ile Arg Ser Pro Glu Phe Gln
 245 250 255
 Ser Ile Ile Ser Thr Leu Asn Ala Met Pro Glu Tyr Gln Glu Leu Leu
 260 265 270
 Gln Asn Leu Arg Asp Lys Gly Val Asp Val Asp His Phe Ile Arg Val
 275 280 285
 Asp Gln Gly Thr Leu Arg Thr Leu Ser Ser Gly Gln Arg Asn Leu Gln
 290 295 300
 Asp Asp Leu Asn Asp Phe Leu Ala Leu Ile Pro Thr Asp Gln Ile Leu
 305 310 315 320
 Ala Ile Ala Met Asp Tyr Leu Ala Asn Asp Ala Glu Val Gln Glu Leu
 325 330 335
 Val Ala Tyr Leu Gln Ser Asp Asp Phe His Lys Ile Ile Thr Thr Ile
 340 345 350
 Glu Ala Leu Pro Glu Phe Ala Asn Phe Tyr Asn Phe Leu Lys Glu His
 355 360 365
 Gly Leu Asp Val Val Asp Tyr Ile Asn Glu Ile His Ser Ile Ile Gly
 370 375 380
 Leu Pro Pro Phe Val Pro Pro Ser Gln Arg His Ala Arg Arg Gly Val
 385 390 395 400

5538-1010seqlisting.txt

Gly Ile Asn Gly Leu Ile Asp Asp Val Ile Ala Ile Leu Pro Val Asp
 405 410 415

Glu Leu Lys Ala Leu Phe Gln Glu Lys Leu Glu Thr Ser Pro Asp Phe
 420 425 430

Lys Ala Leu Tyr Asp Ala Ile Asp Leu Arg Ser Ser Arg Ala
 435 440 445

<210> 122

<211> 352

<212> PRT

<213> Blattella germanica

<400> 122

Met Ile Gly Leu Lys Leu Val Thr Val Leu Phe Ala Val Ala Thr Ile
 1 5 10 15

Thr His Ala Ala Glu Leu Gln Arg Val Pro Leu Tyr Lys Leu Val His
 20 25 30

Val Phe Ile Asn Thr Gln Tyr Ala Gly Ile Thr Lys Ile Gly Asn Gln
 35 40 45

Asn Phe Leu Thr Val Phe Asp Ser Thr Ser Cys Asn Val Val Val Ala
 50 55 60

Ser Gln Glu Cys Val Gly Gly Ala Cys Val Cys Pro Asn Leu Gln Lys
 65 70 75 80

Tyr Glu Lys Leu Lys Pro Lys Tyr Ile Ser Asp Gly Asn Val Gln Val
 85 90 95

Lys Phe Phe Asp Thr Gly Ser Ala Val Gly Arg Gly Ile Glu Asp Ser
 100 105 110

Leu Thr Ile Ser Asn Leu Thr Thr Ser Gln Gln Asp Ile Val Leu Ala
 115 120 125

Asp Glu Leu Ser Gln Glu Val Cys Ile Leu Ser Ala Asp Val Val Val
 130 135 140

Gly Ile Ala Ala Pro Gly Cys Pro Asn Ala Leu Lys Gly Lys Thr Val
 145 150 155 160

Leu Glu Asn Phe Val Glu Glu Asn Leu Ile Ala Pro Val Phe Ser Ile
 165 170 175

His His Ala Arg Phe Gln Asp Gly Glu His Phe Gly Glu Ile Ile Phe
 180 185 190

Gly Gly Ser Asp Trp Lys Tyr Val Asp Gly Glu Phe Thr Tyr Val Pro
 195 200 205

Leu Val Gly Asp Asp Ser Trp Lys Phe Arg Leu Asp Gly Val Lys Ile
 210 215 220

Gly Asp Thr Thr Val Ala Pro Ala Gly Thr Gln Ala Ile Ile Asp Thr
 225 230 235 240
 Ser Lys Ala Ile Ile Val Gly Pro Lys Ala Tyr Val Asn Pro Ile Asn
 245 250 255
 Glu Ala Ile Gly Cys Val Val Glu Lys Thr Thr Thr Arg Arg Ile Cys
 260 265 270
 Lys Leu Asp Cys Ser Lys Ile Pro Ser Leu Pro Asp Val Thr Phe Val
 275 280 285
 Ile Asn Gly Arg Asn Phe Asn Ile Ser Ser Gln Tyr Tyr Ile Gln Gln
 290 295 300
 Asn Gly Asn Leu Cys Tyr Ser Gly Phe Gln Pro Cys Gly His Ser Asp
 305 310 315 320
 His Phe Phe Ile Gly Asp Phe Phe Val Asp His Tyr Tyr Ser Glu Phe
 325 330 335
 Asn Trp Glu Asn Lys Thr Met Gly Phe Gly Arg Ser Val Glu Ser Val
 340 345 350

<210> 123

<211> 182

<212> PRT

<213> Blattella germanica

<400> 123

Ala Val Leu Ala Leu Cys Ala Thr Asp Thr Leu Ala Asn Glu Asp Cys
 1 5 10
 Phe Arg His Glu Ser Leu Val Pro Asn Leu Asp Tyr Glu Arg Phe Arg
 20 25 30
 Gly Ser Trp Ile Ile Ala Ala Gly Thr Ser Glu Ala Leu Thr Gln Tyr
 35 40 45
 Lys Cys Trp Ile Asp Arg Phe Ser Tyr Asp Asp Ala Leu Val Ser Lys
 50 55 60
 Tyr Thr Asp Ser Gln Gly Lys Asn Arg Thr Thr Ile Arg Gly Arg Thr
 65 70 75 80
 Lys Phe Glu Gly Asn Lys Phe Thr Ile Asp Tyr Asn Asp Lys Gly Lys
 85 90 95
 Ala Phe Ser Ala Pro Tyr Ser Val Leu Ala Thr Asp Tyr Glu Asn Tyr
 100 105 110
 Ala Ile Val Glu Gly Cys Pro Ala Ala Ala Asn Gly His Val Ile Tyr
 115 120 125
 Val Gln Ile Arg Phe Ser Val Arg Arg Phe His Pro Lys Leu Gly Asp
 130 135 140

5538-1010seqlisting.txt

Lys Glu Met Ile Gln His Tyr Thr Leu Asp Gln Val Asn Gln His Lys
 145 150 155 160

Lys Ala Ile Glu Glu Asp Leu Lys His Phe Asn Leu Lys Tyr Glu Asp
 165 170 175

Leu His Ser Thr Cys His
 180

<210> 124

<211> 200

<212> PRT

<213> Blattella germanica

<400> 124

Tyr Lys Leu Thr Tyr Cys Pro Val Lys Ala Leu Gly Glu Pro Ile Arg
 1 5 10 15

Phe Leu Leu Ser Tyr Gly Glu Lys Asp Phe Glu Asp Tyr Arg Phe Gln
 20 25 30

Glu Gly Asp Trp Pro Asn Leu Lys Pro Ser Met Pro Phe Gly Lys Thr
 35 40 45

Pro Val Leu Glu Ile Asp Gly Lys Gln Thr His Gln Ser Val Ala Ile
 50 55 60

Ser Arg Tyr Leu Gly Lys Gln Phe Gly Leu Ser Gly Lys Asp Asp Trp
 65 70 75 80

Glu Asn Leu Glu Ile Asp Met Ile Val Asp Thr Ile Ser Asp Phe Arg
 85 90 95

Ala Ala Ile Ala Asn Tyr His Tyr Asp Ala Asp Glu Asn Ser Lys Gln
 100 105 110

Lys Lys Trp Asp Pro Leu Lys Lys Glu Thr Ile Pro Tyr Tyr Thr Lys
 115 120 125

Lys Phe Asp Glu Val Val Lys Ala Asn Gly Gly Tyr Leu Ala Ala Gly
 130 135 140

Lys Leu Thr Trp Ala Asp Phe Tyr Phe Val Ala Ile Leu Asp Tyr Leu
 145 150 155 160

Asn His Met Ala Lys Glu Asp Leu Val Ala Asn Gln Pro Asn Leu Lys
 165 170 175

Ala Leu Arg Glu Lys Val Leu Gly Leu Pro Ala Ile Lys Ala Trp Val
 180 185 190

Ala Lys Arg Pro Pro Thr Asp Leu
 195 200